



August 8, 2019

Tony Howes
Project Manager
Utah Department of Environmental Quality
Division of Environmental Response and Remediation
195 North 1950 West
P.O. Box 144840
Salt Lake City, Utah 84114-4840

**Re: Final First Quarter 2019 (February 27, 2019) Sampling and Results Summary
Five Points PCE Plume Site
Davis County, Utah
Work Assignment No. 06 under Contract No. 146237**

Dear Mr. Howes:

This letter report summarizes and presents the results of the 2019 first quarter sampling event conducted at the Five Points PCE Plume Site in February 2019, which constitutes the fifth quarterly sampling event to be conducted under this work assignment.

Samples were collected from 13 of the 19 site monitoring wells, as shown on Figure 1 and summarized in Table 1. MW1-2004 and MW2-2004 were not sampled because they were dry. MW-102 was not sampled due to its initial non-detect result and because MW-103 has provided bounding of the tetrachloroethene (PCE) plume in that area. MW-103 was not sampled this event because it was temporarily covered by a roll-off dumpster during the site visit; however, this is not considered to be an issue since MW-103 has been well below 5 ug/L (either non-detect or less than 1ug/L) during all previous quarters and it will be sampled again during the next quarterly sampling event (second quarter of 2019). MW-106S and MW-107S were not sampled also due to their initial non-detect results and because they are completed above the PCE plume.

Samples for this quarter were collected in accordance with the project Sampling and Analysis Plan using HydraSleeves, which were deployed in the wells on February 25, 2019. Water levels were recorded at each well prior to deploying the HydraSleeves (refer to Figure 1 for water table elevations and Attachment 4 for water level information over time). The HydraSleeves were set at the depths where the highest concentrations of PCE were previously detected, which for MW-105 is at the water table; for all other wells (except MW-101) it is the middle of the screened interval, which was set based on the highest detected PCE concentrations observed during drilling of the well. For MW-101, the highest concentration observed during drilling was at the water table, which is where the top of the 30-foot screen was set, the idea being that the long screen would allow for mining of the water table, which is what was occurring at the time. However, water levels in the vicinity of MW-101 historically increased, flooding the screen. Therefore, the HydraSleeve at MW-101 has historically been set to collect water from the top of the

screened interval, which was approximately ten feet below the water table. During this sampling event the water table was coincident with the top of the screened interval at MW-101, therefore, the sample was collected at the water table. The associated field forms are included in Attachment 1.

The HydraSleeves were pulled and samples collected on February 27, 2019. Field water quality parameters (pH, temperature, conductivity, oxidation-reduction potential [ORP], and dissolved oxygen [DO]) were measured at each sample location using a YSI-556 multi-probe meter and recorded on the HydraSleeve Sampling form. Samples were submitted to ALS Laboratories in Salt Lake City for volatile organic compound (VOC) analysis by EPA Method SOM02.4. The associated field forms are included in Attachment 1. The analytical data package and Excel file electronic data deliverable from ALS are included in Attachment 2. The data was validated by an AECOM chemist in accordance with the Quality Assurance Project Plan (QAPP). The data was found to be useable as qualified, with the majority of the qualifications being estimated (J). Acetone and chloromethane were detected in the trip blank at concentrations at <10X for acetone and <5x the concentration for chloromethane of the blank. Contamination were qualified as non-detect (U TB-I) at the reported concentration for results reported at concentrations greater than the reporting limits (RL) or the RL for results reported at concentrations less than the RL. Benzene was detected outside of the control limits for relative percent difference, the potential bias was considered to be low, so the result was qualified as estimate (UJ). See Attachment 3 for the data validation report.

Table 1 summarizes the PCE and daughter product results for this quarter of sampling; and for comparison purposes, Table 2 summarizes the PCE concentrations at each monitoring well and sampled municipal well over time. Attachment 4 includes a summary of well information, current and historic water levels, and PCE information, as well as hydrographs depicting this data for each monitoring well.

Figure 1 presents the contoured PCE plume based on the February 2019 results, as well as the footprint of the PCE plumes for the previous sampling events conducted at the site on the full set of site wells. The February 2019 groundwater elevations at each well are also shown, along with the associated groundwater contours. PCE and groundwater contours were prepared using the Surfer Version 15 Contouring Package, followed by manual interpretive editing and smoothing. The contouring package takes the point data (in this case water level elevations or PCE concentrations and piezometer locations) and interpolates them to a regular grid using the kriging interpolators available in Surfer; contours are then generated from the interpolated grid. These computer-generated contours were manually smoothed and edited to honor known data points and to reflect professional judgment in areas of sparse data. In generating the groundwater contours, where nested wells exist, the deep wells were used to produce the contours.

Figure 1 also includes the most recent PCE concentrations for municipal wells that were sampled by the respective municipality. During this quarter, the following municipal wells were sample during the same time frame as the sampling conducted with Hydrasleeves; WC#4, Honey Well, and 1100 North Well and the following municipal wells have older PCE results; Freda Well, New Well, WC#1, WC#2, WC#3,

WC#5, and Bountiful Well. However, it should be noted that these samples are not collected from discrete depth intervals like the Hydrasleeve samples (with the exception of the historic WC#2 sample, which was collected using Hydrasleeve). They are collected across large screened intervals that would likely collect water from unimpacted intervals as well as impacted intervals. As such, they are not directly comparable to the Hydrasleeve samples and are, therefore, not used in the PCE contouring effort.

Pumping rates for the Weber Basin Water Conservancy District (WBWCD), City of North Salt Lake (NSL), and City of Woods Cross municipal supply wells were verified in February 2019 and are presented, along with the most recent PCE concentrations available, in Table 3. All wells are either operating within the historical ranges previously reported or are not currently in use. Because these pumping rates are consistent with or less than historical trends, the Five Points PCE plume is not expected to migrate counter to the current conceptual site model.

We appreciate the continued opportunity to provide professional services to your agency. If you have any questions regarding this deliverable, please do not hesitate to contact me at (801) 904-4073.

Sincerely,

AECOM



Tammi Messersmith, PE
Project Manager

cc: Sam Garcia, EPA

Attachments:**Tables:**

Table 1 – Five Points PCE and Daughter Product Quarterly Data, February 27, 2019

Table 2 – Five Points PCE Concentrations Over Time

Table 3 – Latest Municipal Well Pumping Rates and PCE Data

Figures:

Figure 1 – Comprehensive Site Map Showing PCE Plume (February 2019)

Attachments:

Attachment 1 – Field Forms

Attachment 2 – ALS Analytical Data Package and Electronic Data Deliverable for February 27, 2019

Attachment 3 – Data Validation Report

Attachment 4 – Monitoring Well and Water Level/PCE Information and Hydrographs



Tables

Table 1
Five Points PCE and Daughter Product Quarterly Data
February 27, 2019

Sample ID	Sample Depth (ft bgs)	Analyte	Result ⁽¹⁾ ($\mu\text{g/L}$)
MW-101	159	Tetrachloroethene	24
		Trichloroethene	0.51
		cis-1,2-Dichloroethene	0.17 J
		Vinyl chloride	<0.50 U
MW-101 ⁽²⁾	159	Tetrachloroethene	29
		Trichloroethene	0.52
		cis-1,2-Dichloroethene	0.16 J
		Vinyl chloride	<0.50 U
MW-103	NM Due to access issue	Tetrachloroethene	NA
		Trichloroethene	NA
		cis-1,2-Dichloroethene	NA
		Vinyl chloride	NA
MW-104	120	Tetrachloroethene	12.0
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-105	143	Tetrachloroethene	1.9
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-106I	145	Tetrachloroethene	3.40
		Trichloroethene	0.12 J
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-106D	195	Tetrachloroethene	1.1
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-107I	145	Tetrachloroethene	0.35 J
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-107D	200	Tetrachloroethene	0.44 J
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-108I	149	Tetrachloroethene	0.58
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-108D	214	Tetrachloroethene	3.2
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-109I	169	Tetrachloroethene	1.1
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-109D	230	Tetrachloroethene	0.53
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-110I	208	Tetrachloroethene	<0.50 U
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW-110D	301	Tetrachloroethene	0.26 J
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U
MW1-2004	Dry	Tetrachloroethene	NA
		Trichloroethene	NA
		cis-1,2-Dichloroethene	NA
		Vinyl chloride	NA
MW2-2004	Dry	Tetrachloroethene	NA
		Trichloroethene	NA
		cis-1,2-Dichloroethene	NA
		Vinyl chloride	NA
Trip Blank	NA	Tetrachloroethene	<0.50 U
		Trichloroethene	<0.50 U
		cis-1,2-Dichloroethene	<0.50 U
		Vinyl chloride	<0.50 U

Notes:

(1) - Bold values indicate PCE concentrations exceed 5 $\mu\text{g/L}$

(2) - Field duplicate collected at MW-101

$\mu\text{g/L}$ - Micrograms per liter

bgs - Below ground surface

ft - Feet

NA - Not applicable

NM - Not measured

PCE - Tetrachloroethene

D - Laboratory diluted sample

U - Below laboratory detection limit

J - Estimated value based on results of the data validation

Table 2
Five Points PCE Concentrations Over Time

Collection Date		09/20/10	01/27/11	11/16/11	11/17/11	02/02/12	04/06/12	05/15/12	08/30/12	09/05/12	11/28/12	02/26/13	01/28/14	05/14/14	08/14/14	11/13/14	02/11/15	02/16/18	05/16/18	08/29/18	11/29/18	02/27/19	
Location	Sample depth (ft bgs) ⁽¹⁾	PCE µg/L ⁽²⁾																					
MW-101	159 (153-160)	32	30			12		8.1	1.4		2.3	2.1	14	9.4	24 D	18	52 DB	13 D	27 DB	23 D	21 D	29	
MW-101	170	14																					
MW-101	180	7.1																					
MW-102	123	<0.5																					
MW-103	122 (108-116)	0.13	<0.5 U			0.19 U		0.19 J	0.35 J		0.15 J	<0.5	0.14 J	0.16 J	<0.5 U	<0.5 U	0.17 J	0.17 J	0.17 J	<0.50 U	0.19 J	NS	
MW-104	120 (119-120)		19			26		14	18		14	21	18	17	14	12	10	5.0	8.4	5.3	3.4	12	
MW-105	143 (135-146)		0.9			0.76		0.26 J	0.18 J		0.18 J	0.16 J	0.36 J	0.54	1.1	1.3	0.97	2.6	2.2	2.1	1.1	1.9	
MW-106S	66		<0.5			<0.5																	
MW-106I	145 (145-146)					9.6		7.8		8.4	4.6	6.7	7.3	4.9	5.2	6.1	1.8 B	2.0	0.9	1.8	0.45 J	3.4	
MW-106D	195 (192-197)					1		1.2 J	2.2		2.1	2.7	2.2	2.7	2	2.2	0.64 B	0.38 J	1.2	2.3	1.8	1.1	
MW-107S	66		<0.5			<0.5																	
MW-107I	145 (145)					1.2		1	1.1		1.2	1.2	1.3	0.36 J	0.87	1.1	0.94 B	0.5	0.3 J	0.26	0.16 J	0.35 J	
MW-107D	200 (200-203)					1.4		1.3	1.7		1.5	2.3	1.7	1.3	1.5	2	0.89 B	2.0	0.13 J	0.29 J	1.20	0.44 J	
MW-108I	149 (149)									1		0.71	0.88	0.93	0.78	1.1	1.1	0.98 B	0.35 J	0.33 J	0.48 J	0.65	0.58
MW-108D	214 (214)									7.2 J		4.7	6.5	5.9	6.6	5.5	5.5	4.9 B	3.0	1.7	3.0	3.0	3.2
MW-109I	169 (167-169)									0.59		1.2	1.5	1	1.2	0.38 J	1.7	0.36 JB	0.73	0.46 J	1.5	0.57	1.1
MW-109D	230 (215-230)									0.26 J		0.21 J	0.6	0.66	0.83	0.84	0.69	0.58 B	0.98	0.64	0.36 J	0.4 J	0.53
MW-110I	208 (206-208)									0.3 J		<0.5	0.12 J	<0.5	0.12 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.50 U	<0.50 U	<0.50 U	<0.50
MW-110D	301 (298-301)									2.2		2.2	2.6	2	0.78	1.2	1.5	0.53 B	0.67	0.43 J	0.56	0.39 J	0.26 J
MW-1-2004	108 (101-112)	9.3	3.6			39		13	46		22	21	9.5	15	Dry	Dry	4.7 B	3.7	1.4	Dry	Dry	Dry	
MW-2-2004	110 (104-114)	0.73	<0.5 U			0.92		1.5	1.4		1	2.2	0.25 J	0.26 J	Dry	0.34	0.24 JB	0.19 J	0.17 J	Dry	Dry	Dry	
WC#2	110					<0.5																	
WC#2	128					<0.5																	
WC#2	148					<0.5																	
WC#2	158					<0.5																	
WC#2	180					<0.5																	
Freda Well	196							2.8	2.5	3.6		2.5	2.7										
Freda Well	221							2.6 J	5.4	3.5		2.8	5.6										
Freda Well	336							3.9	3.8	2.8		3	5.6										
Freda Well	366							1.6	2.2														
Freda Well	421							2	2.2														

Notes:

⁽¹⁾ - Most recent depth (historical range in parentheses)

⁽²⁾ - Bold values indicate PCE concentrations exceed 5 µg/L. Shaded cells indicate the well was not sampled on that date.

PCE - Tetrachloroethene

ft - feet

bgs - below ground surface

NS - Not Sampled due to access issue

µg/L - micrograms per liter

J - Estimated value based on results of the data validation

U - Below laboratory detection limit based on results of the data validation

D - Laboratory diluted samples

B - Analyte was found in the associated method blank

JB - Estimated quantity. Analyte was found in the associated method blank.

Table 3
Latest Municipal Well Pumping Rates and PCE Data

Municipality	Sample ID	Pumping Rates ⁽¹⁾ (gpm)	Sample Date	Result (μ g/L)
Weber Basin Water Conservancy District	Bountiful Well	2,250	9/20/2017	ND
North Salt Lake	New Well ⁽²⁾	Not in use	1/10/2019	ND
	1100 North Well	1,400	2/27/2019	0.6
	Honey Well	1,000	2/27/2019	1.0
	Freda Well ⁽³⁾	Not in use	9/10/2018	2.1
Woods Cross	WC1 ⁽⁴⁾	Not in use	12/19/2012	1.1
	WC2 ⁽⁵⁾	Not in use	11/16/2011	ND
	WC3 ⁽⁶⁾	Not in use	5/1/2018	0.6
	WC4 ⁽⁷⁾	1,300	2/14/2019	1.3
	WC5 ⁽⁸⁾	Not in use	5/1/2018	ND

Notes:

Bold values indicate PCE concentrations collected in current quarter

⁽¹⁾ Approximate pumping rate during the current quarter of site sampling

⁽²⁾ historically pumped at approximatly 1,000 gpm (\pm 50 gpm)

⁽³⁾ historically pumped at approximatly 500 gpm. Used for secondary water only when in use

⁽⁴⁾ historically pumped at approximatly 500 gpm.

⁽⁵⁾ historically pumped at approximatly 280 gpm.

⁽⁶⁾ historically pumped at approximatly 1,000 gpm

⁽⁷⁾ Capacity of 1,700 gpm

⁽⁸⁾ historically pumped at approximatly 1,000 gpm

μ g/L - micrograms per liter

gpm - gallons per minute

NA - not applicable

ND - below laboratory detection limit

NS - not sampled

Figures



Attachment 1

Field Forms

5-POINTS GROUNDWATER ELEVATION AND HYDRASLEEVE (HS) SET FORM

Monitoring Well	Sample (Yes/No)	Screen Interval (ft BGS)	Water Level Date	Depth to Water (DTW)	Total Depth	Proposed HS Set Depth (top of HS, ft BTOC)	Actual HS Set Depth (top of HS, ft BTOC)	Hydrasleeve Set Date	Hydrasleeve Set Time	QA/QC	Comments
MW 1-2004	Yes	82-112	2/25/19	DRY	114.04	3' Below DTW or at 85 ft if Screen is Flooded				FD	
MW 2-2004	Yes	90-116		DRY	116.37	3' Below DTW or at 93 ft if Screen is Flooded				NA	
MW-101	Yes	155-185		155.43	194.53	3' Below DTW or at 158 ft if Screen is Flooded	159	2/25/19	1150	NA	
MW-102	No	115-135		118.92	142.97						
MW-103	Yes	105-125		NM	NM	3' Below DTW or at 108 ft if Screen is Flooded	—	—	—	NA	Well covered by roll-off
MW 104	Yes	115-135		96.22	142.81	120	120	2/25/19	1120	NA	
MW 105	Yes	136-156		140.09	167.29	3' Below DTW or at 139 ft if Screen is Flooded	143	2/25/19	1135	MS/MSD	
MW 106s	No	60-70		61.41	72.32						
MW 106i	Yes	138-148		63.95	149.81	145	145	2/25/19	850	NA	
MW 106d	Yes	188-198		64.06	200.50	195	195	2/25/19	855	NA	
MW 107s	No	60-70		55.08	71.81						
MW 107i	Yes	138-148		64.68	149.48	145	145	2/25/19	815	NA	
MW 107d	Yes	193-203		64.70	225.23	200	200		830	NA	
MW-108i	Yes	140-150		43.96	164.12	149	149		1035	NA	
MW-108D	Yes	204-214		43.71	216.78	214	214		1040	NA	
MW-109i	Yes	160-170		48.20	174.61	169	169		915	NA	
MW-109D	Yes	210-220		54.02	233.71	230	230		920	NA	
MW-110i	Yes	198-208		35.85	211.15	208	208		955	NA	
MW-110D	Yes	292-302		43.45	+300	301	301	↓	1020	NA	
Freda 193-196	No	Multiple									Measure distance from old measuring point
Freda 218-221	No	Multiple									
Freda 333-336	No	Multiple		59.60	NM						
New Well	No										
WC-2	No	Multiple		79.0	NM						
WC-3	No	220-393		NA	NM						
WC-4	No	260-380	↓	32.0	NM						Well head removed for repair

Comments/Notes

TOS = Top of Screen

Update grey highlighted cells based on water level data for current round of sampling. Top of Hydrasleeve should be set at 3 feet below top of water or 3 ft below top of screen if water level indicates the screen is flooded.

LOCK #: 3210

Sampling Personnel: Lindsey Anderson McLean Carpenter

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NS = Not Sampled

NM = Not Measured

AECOM

5-POINTS GROUNDWATER SAMPLING FORM

Monitoring Well	QA/ QC	Sample Date	Sample Time	pH	Temp	Cond	ORP	DO	Comments
MW 1-2004	NA								NS - well dry
MW 2-2004	NA								NS - well dry
MW-101 (159)	FD	2/27/19	1105	7.01	12.86	1.141	+69.7	7.64	FD MW-9101 taken @ 1110
MW-103	NA								NS - well covered by dumpster
MW 104 (120)	NA	2/27/19	1150	6.98	13.17	1.667	+84.9	6.72	FD taken @ 1110 mrc
MW 105 (143)	MS/MSD	2/27/19	1130	7.54	12.08	1.507	+81.9	5.00	
MW 106i (145)	NA	2/27/19	940	6.69	12.54	1.298	+184.0	4.26	
MW 106d (195)	NA	2/27/19	950	7.29	11.92	0.757	+184.9	3.93	
MW 107i (145)	NA	2/27/19	915	6.60	13.50	1.247	+197.2	6.66	
MW 107d (200)	NA	2/27/19	930	7.30	13.32	0.898	+209.7	3.38	
MW-108I (149)	NA	2/27/19	1020	7.32	12.07	0.287	+58.8	1.79	
MW-108D (214)	NA	2/27/19	1030	7.13	12.07	1.119	+45.2	5.31	
MW-109I (169)	NA	2/27/19	1000	6.92	13.01	1.024	+117.4	3.96	
MW-109D (230)	NA	2/27/19	1010	6.36	13.13	1.165	+97.2	4.27	
MW-110I (208)	NA	2/27/19	1040	7.23	11.91	0.706	+51.5	6.20	
MW-110D (301)	NA	2/27/19	1050	7.13	11.64	0.845	+62.8	5.98	

Comments/Notes

LOCK #: 3210

Sampling Personal:

McLean Carpenter / Lindsey Anderson

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NS = Not Sampled

AECOM

Equipment Calibration Form

Project: 5 Points

Project Number: 60546131

Instrument: YSI 556

Model/Serial Number: SN: 10H100933

Weather: 54°F, cloudy, breezy

Calibration Personnel: McLean Carpenter

2021/19



**Certificate of Compliance
and Calibration**

Certificate Number 2/22/2019 - 6087

Order#	03018077	Make/Model	YSI 556-4
Customer#	0021330	Asset #	1115441
Customer Name	AECOM/URS	Serial Number	10H100933

pH Sensor Installed and Calibrated			
Set Point	pH 4.00	pH 7.00	<input checked="" type="checkbox"/>
Lot Number	13473	7112990	7022788
Final Span	Ph 4	Ph 7	pH 10
DO Sensor Installed and Calibrated <input checked="" type="checkbox"/>		ORP Installed?	<input checked="" type="checkbox"/>
Temperature:		ORP Cal Value:	229 mV
Set Point	18.68°	ORP Lot#:	8072549
Final Span	9.63 ms/cm	Final Span	229 mV
Conductivity Sensor Installed and Calibrated <input checked="" type="checkbox"/>			
Set Point	4.49 ms/cm		
Lot Number	13473		
Final Span	4.49 ms/cm		
Turbidity Sensor Installed and Calibrated <input type="checkbox"/>			
Set Point	0.00 ntu	100 ntu	
Lot Number	11674	A5092	
Final Span			

Notes

Location	DETROIT	Asset Released In Tolerance	<input checked="" type="checkbox"/>
Technician	SB	All Tests Passed	<input checked="" type="checkbox"/>
Date	2/22/2019		
Time	15:39		
SOP#			

Quality Control: *[Signature]* **Date:** *2-22-19*

Please Note: All tests performed with NIST Traceable Calibration Solutions at ambient room temperature, humidity, and pressure at the location listed above. Time in transit or any change in temperature, pressure, humidity, or elevation may result in changes to the calibration values listed. Performance of a bump test is recommended prior to each use; refer to owners manual for bump testing and calibration procedures. Use of this test sheet constitutes proof that the testing environment was within manufacturers' limitation and the instrument conforms to manufacturers' specification. For a copy of the calibration standard certificate of analysis or MSDS, contact us at 800-332-0435.



ALS Environmental
Field Chain-of-Custody Record

CoC #:

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Client Name & Address: AECOM 756 E Winchester St #400 SLC, UT 84107		Project Name & No.: 5 points PCE 10DS46131 task 4		No. of Containers	Sample for Matrix QC	Analyses Requested						Preservation Code	Sample Matrix Code	Matrix Codes: W) Water B) Bulk L) Liquid F) Filter S) Soil G) Wipe C) Solid M) Media	Remarks	
ALS Quote No:																
Report to: Tammi Messersmith																
Phone: 801 904 4000		Report to e-mail: tammi.messersmith@verizon.net		Bill to: AECOM												
e-mail: tammi.messersmith@verizon.com																
Field Sample Number	Site ID	Depth	Date/Time													
TB-022719	S-Points	445 Prepared-	2/27/19 0915	2	X											
SP-MW107I-145		145	2/27/19 0930	3	X											
SP-MW107D-200		200	2/27/19 0940	3	X											
SP-MW106I-145		145	2/27/19 0950	3	X											
SP-MW106D-195		195	2/27/19 1000	3	X											
SP-MW109I-169		169	2/27/19 1010	3	X											
SP-MW109D-230		230	2/27/19 1020	3	X											
SP-MW108I-149		149	2/27/19 1030	3	X											
SP-MW108D-215		215	2/27/19 1040	3	X											
SP-MW110I-208		208	2/27/19 1040	3	X											
Possible Hazard Identification			Sample Disposal			Data Deliverable:			Requested Turn Around Time							
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Rad	<input type="checkbox"/> Return to Client	<input type="checkbox"/> Archive _____ Months	<input type="checkbox"/> Level 1	<input type="checkbox"/> Level 3	<input type="checkbox"/> 2 Days (Rush)	<input type="checkbox"/> 7 Days (Rush)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Level 2	<input checked="" type="checkbox"/> Level 4	<input type="checkbox"/> 3 Days (Rush)	<input checked="" type="checkbox"/> 14 Days	(Rush = email data by COB on day due. Surcharges assessed.)		
Carrier/Airbill #:																
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	Shipped to:						
			2/27/19	1215				2/27/19	12:15	ALS Environmental						
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	960 West LeVoy Drive						
										Salt Lake City, UT 84123						
										Phone: (800) 356-9135						
										Phone: (801) 266-7700						
										FAX: (801) 268-9992						
										WEB: www.alsglobal.com						

White - Laboratory Copy

Yellow - Client Copy



ALS Environmental
Field Chain-of-Custody Record

CoC #:

Page 2 of 2

Client Name & Address: AECOM 756 E Winchester St #400 SLC, UT 84107		Project Name & No.: 5 Points PCE 60546131 Task 4		No. of Containers	Sample for Matrix QC	Analyses Requested							Preservation Code	Sample Matrix Code	Matrix Codes: W) Water B) Bulk L) Liquid F) Filter S) Soil G) Wipe C) Solid M) Media		
ALS Quote No:																	
Report to: Tammie Messersmith																	
Phone: 801 904 4000		Report to e-mail: tammie.messersmith@aecom.com															
e-mail: tammie.messersmith@aecom.com		Bill to: AECOM															
Field Sample Number		Site ID		Depth	Date/Time									Remarks			
5P-MW100-301		5 Points		301	2/27/19 1050		3	X VOCs (80402.4)									
5P-MW101-159				159	2/27/19 1105		3	X									
5P-MW101-159-Y				159	2/27/19 1110		3	X									
5P-MW105-143				143	2/27/19 1130		9	X X									
5P-MW104-120				120	2/27/19 1150		3	X									
5P-MW104FM															3x volumetric mSDS		
Possible Hazard Identification				Sample Disposal				Data Deliverable:				Requested Turn Around Time					
<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Rad		<input type="checkbox"/> Return to Client		<input type="checkbox"/> Archive _____ Months		<input type="checkbox"/> Level 1		<input type="checkbox"/> Level 3		<input type="checkbox"/> 2 Days (Rush)		<input type="checkbox"/> 7 Days (Rush)	
<input type="checkbox"/> Flammable		<input type="checkbox"/> Poison		<input checked="" type="checkbox"/> Unknown		<input checked="" type="checkbox"/> Disposal by Lab		(fees assessed for samples retained > 3 months)		<input type="checkbox"/> Level 2		<input checked="" type="checkbox"/> Level 4		<input type="checkbox"/> 3 Days (Rush)		<input checked="" type="checkbox"/> 14 Days	
								EDD Type:				(Rush = email data by COB on day due. Surcharges assessed.)					
Carrier/Airbill #: <i>[Signature]</i>																	
Relinquished by: (Signature) <i>[Signature]</i>		Date 2/27/19	Time 1213	Received by: (Signature) <i>[Signature]</i>							Date 2/27/19	Time 12:15	Shipped to: ALS Environmental 960 West LeVoy Drive Salt Lake City, UT 84123 Phone: (800) 356-9135 Phone: (801) 266-7700 FAX: (801) 268-9992 WEB: www.alsglobal.com				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)							Date	Time					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)							Date	Time					

White - Laboratory Copy

Yellow - Client Copy

Americas

Task Hazard Assessment

S3AM-209-FM6

Date: 01/25/19	Project Name / Location: 5-Point Plume
Permit / Job Number:	Project Number: 60546131
Description of Task: GW sampling and monitoring	

Do you have a pre-job hazard assessment (JHA) specific to this task in your hands?

- Yes – review the steps, hazards, and precautions. Attach and reference JHA in the form below. Add any additional steps, hazards, and precautions to this form otherwise unidentified on JHA.
 No – list all steps, hazards, and precautions associated with the task in the form below.

The Task Hazard Assessment is to be completed at the worksite by the individual(s) who is intended to conduct the task immediately prior to initiating the associated task. Number and attach additional pages if necessary.

Worker/Visitor acknowledgement and review of this content on back of this document. Originator to also sign Worker acknowledgement section.

Risk Matrix on Reverse

Originators

Lyndsey Anderson Print Name

Print Name

Supervisor

Lynsey Anderson
Print Name

Print Name

Highest Risk Index

Signatures

卷之三

Signatures

THIS FORM IS TO BE KEPT ON JOB SITE.

WORKER SIGN ON

NAME (Please Print)

TIME

SIGNATURE

I participated in the development and understand the content of this Task Hazard Assessment.

McLean Carpenter

900

SIGNATURE

erstand the content of this
ent.



Task Hazard Assessment Follow-Up/Review

Initials/Time Initials/Time Initials/Time

Initials/Time Initials/T

Initials/Time **Initials/Time** **Initials/Time**

Instructions:

Identify basic steps of the task and associated hazards. Calculate the initial risk rating. Identify control measure to eliminate or reduce the hazard's risk and calculate the residual risk rating. If the risk rating (after controls are implemented) cannot be reduced to 4 or lower, additional approvals are needed before the activity can begin.

Employees shall monitor the activities for compliance with this document. Workers should **STOP WORK** on a task if conditions change from the planned and agreed approach to the work.

This document should be updated to reflect new conditions or changes in task methods.

VISITOR SIGN ON

I have read and understand the content of this Task Hazard Assessment

Emergency Meeting / Assembly Area

Emergency Contact #

Method of Communication

Method of Communication

Risk Rating Matrix

Probability	Severity				
	5 - Catastrophic	4 – Critical	3 – Major	2 – Moderate	1 - Minor
5 – Frequent	25	20	15	10	5
4 – Probable	20	16	12	8	4
3 – Occasional	15	12	9	6	3
2 – Remote	10	8	6	4	2
1 - Improbable	5	4	3	2	1

Risk Rating (Probability x Severity)	Risk Acceptance Authority
1 to 4 (Low)	Risk is tolerable, manage at local level
5 to 9 (Medium)	Risk requires approval by Operations Lead/Supervisor & SH&E Manager
10 to 25 (High)	Risk requires the approval of the Operations Manager & SH&E Director

Severity – Potential Consequences				
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>\$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>\$250K to \$1M USD	Onsite impact requiring remediation	Media intervention
Major	Lost/Restricted Work	> \$10K to \$250K USD	Release at/above reportable limit	Owner intervention
Moderate	Medical Treatment	> \$1K to \$10K USD	Release below reportable limit	Community or local attention
Minor	First Aid	<=\$1K USD	Small chemical release contained onsite	Individual complaint

		Probability	Contained on Site
Frequent	Expected to occur during task/activity	9/10	
Probable	Likely to occur during task/activity	1/10	
Occasional	May occur during the task/activity	1/100	
Remote	Unlikely to occur during task/activity	1/1,000	
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000	

Americas

Task Hazard Assessment

S3AM-209-FM6

Date: 2/27/29	Project Name / Location: 5-Point Plume
Permit / Job Number:	Project Number: 60546131
Description of Task: GW sampling and monitoring	

Do you have a pre-job hazard assessment (JHA) specific to this task in your hands?

- Yes – review the steps, hazards, and precautions. Attach and reference JHA in the form below. Add any additional steps, hazards, and precautions to this form otherwise unidentified on JHA.
 No – list all steps, hazards, and precautions associated with the task in the form below.

The Task Hazard Assessment is to be completed at the worksite by the individual(s) who is intended to conduct the task immediately prior to initiating the associated task. Number and attach additional pages if necessary.

Worker/Visitor acknowledgement and review of this content on back of this document. Originator to also sign Worker acknowledgement section.

Originator

Lindsey Anderson
Print Name

15100

Supervisor

Lyndsey Anderson
Print Name

Print Name

Highest Risk Index

Right Kick Index

[Signature] Signature

Risk Matrix on Reverse

Task Hazard Assessment (S3AM-209-FM6)
Revision 6 June 26, 2017

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THIS FORM IS TO BE KEPT ON JOB SITE.

WORKER SIGN ON

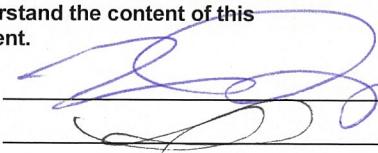
NAME (Please Print)

TIME

SIGNATURE

I participated in the development and understand the content of this
Task Hazard Assessment.

McLean Carpenter 900



Lynsey Anderson 900


**Task Hazard Assessment
Follow-Up/Review**

Initials/Time

Initials/Time

Initials/Time

Instructions:

Identify basic steps of the task and associated hazards. Calculate the initial risk rating. Identify control measure to eliminate or reduce the hazard's risk and calculate the residual risk rating. If the risk rating (after controls are implemented) cannot be reduced to 4 or lower, additional approvals are needed before the activity can begin.

Employees shall monitor the activities for compliance with this document. Workers should **STOP WORK** on a task if conditions change from the planned and agreed approach to the work.

This document should be updated to reflect new conditions or changes in task methods.

VISITOR SIGN ON

I have read and understand the content of this Task Hazard Assessment.

Emergency Meeting / Assembly Area

Emergency Contact #

Method of Communication

Risk Rating Matrix

Probability	Severity				
	5 - Catastrophic	4 - Critical	3 - Major	2 - Moderate	1 - Minor
5 – Frequent	25	20	15	10	5
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2 – Remote	10	8	6	4	2
1 – Improbable	5	4	3	2	1

Risk Rating (Probability x Severity)		Risk Acceptance Authority	
1 to 4 (Low)		Risk is tolerable, manage at local level	
5 to 9 (Medium)		Risk requires approval by Operations Lead/Supervisor & SH&E Manager	
10 to 25 (High)		Risk requires the approval of the Operations Manager & SH&E Director	

Severity – Potential Consequences				
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>\$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>\$250K to \$1M USD	Onsite impact requiring remediation	Media intervention
Major	Lost/Restricted Work	> \$10K to \$250K USD	Release at/above reportable limit	Owner intervention
Moderate	Medical Treatment	> \$1K to \$10K USD	Release below reportable limit	Community or local attention
Minor	First Aid	<=\$1K USD	Small chemical release contained onsite	Individual complaint

Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000



Attachment 2

**ALS Analytical Data Package and Electronic Data Deliverable
for February 27, 2019
(provided electronically on attached CD)**

Attachment 3

Data Validation Report

FIVE POINTS PCE PLUME SITE QC Sample Evaluation

Data Package Number (Work Order): TV219 (1905930)

Sampling Event Dates: February 27, 2019

Sample-specific Parameter Review/Laboratory Performance Parameters: Yes

Full Validation (e.g. result recalculation): No

Data Reviewer: Brian Rothmeyer, URS Chemist

Date Completed: April 8, 2019

Peer Reviewer: Sheri Fling, URS Quality Assurance Manager (QAM)

The table below summarizes the data package and sample identifications discussed in this data review.

Field Identification	Sample Type	Lab Identification	Matrix	Analysis
				VOCs
TB-022719	TB	1905930001	Water	X
5P-MW107I-145	SA	1905930002	Water	X
5P-MW107D-200	SA	1905930003	Water	X
5P-MW106I-145	SA	1905930004	Water	X
5P-MW106D195	SA	1905930005	Water	X
5P-MW109I-169	SA	1905930006	Water	X
5P-MW109D-230	SA	1905930007	Water	X
5P-MW108I-149	SA	1905930008	Water	X
5P-MW108D-215	SA	1905930009	Water	X
5P-MW110I-208	SA	1905930010	Water	X
5P-MW110D-301	SA	1905930011	Water	X
5P-MW101-159	SA	1905930012	Water	X
5P-MW101-159-Y	FD	1905930013	Water	X
5P-MW105-143	SA	1905930014	Water	X ^m
5P-MW104-120	SA	1905930017	Water	X

Sample Type:

FD – Field Duplicate

SA – Sample

TB – Trip Blank

VOCs – Volatile Organic Compounds

X^m – Matrix Spike/Matrix Spike Duplicate

Note: Samples 1905930015 and 1905930016 were the matrix spike/ matrix spike duplicate (MS/MSD) performed on sample 1905930014 and were not included in the sample table above. No further action was required.

Analysis: EPA – Environmental Protection Agency
Trace VOCs (EPA SOM02.4)

The data review was conducted in accordance with the Quality Assurance Project Plan for the Remedial Design at the Five Points PCE Plume Site, Davis County, Utah (AECOM, March 2018), method requirements, and with guidance from National Functional Guidelines for Superfund Organic Methods Data Review (EPA, 2017).

General Overall Assessment:

- Data are usable without qualification.
 X Data are usable with qualification (See Attachment 1: Qualified Data Sheets)
 Some or all data are unusable for any purpose (detailed below).

Case Narrative Comments: Any laboratory case narrative comments concerning data qualification were addressed in the table below.

Trace level detects, reported between the method detection limit (MDL) and the reporting limit (RL) have been qualified as estimated (J). The other occurrences of data qualification are covered in the following table.

Review Parameter	Criteria Met?	Comment
Chain of Custody & Sample Receipt	No	With the exceptions noted below, the samples were received by ALS in Salt Lake City, Utah in good condition and were consistent with the accompanying chain of custody (COC). The cooler arrived at the laboratory at a temperature of 7 degrees Celsius (°C). As the samples were received at the laboratory on ice the same day that the samples were collected, data qualification was not considered necessary.
Holding Times	Yes	The samples were analyzed within the method required holding time.
Laboratory Blanks <ul style="list-style-type: none">• Method Blank• Storage Blank	Yes	Target analytes were not detected within the method blanks or storage blanks.
Matrix Quality Control <ul style="list-style-type: none">• Matrix Spike/ Matrix Spike Duplicate 5P-MW105-143 (SOM02.4)• Laboratory Duplicate None in this data package	No	Matrix Spike/ Matrix Spike Duplicate (MS/MSD) The frequency of MS/MSDs met the Quality Assurance Project Plan (QAPP) requirement of one per twenty samples. With the exception listed in Table 1 below, the MS/MSD recoveries and relative percent differences (RPDs) were within laboratory acceptance limits or met the criteria listed in Table 1 of the QAPP. The MS/MSD spike solution used by the laboratory for volatile organic compounds (VOC) analysis contained the minimum analyte list contained in the respective method. Because a subset of target analytes for this analysis was included in the spike solution used by the laboratory, there is no direct measure of accuracy as it pertains to the samples matrix; however, an acceptable level of accuracy with respect to the analytical method can be inferred from the continuing calibration verification (CCV), MS/MSD results for spiked analytes, and from the surrogate recoveries.

Review Parameter	Criteria Met?	Comment
		<p>Laboratory Duplicate</p> <p>A laboratory duplicate was not performed on a sample from this data package.</p>
Method Quality Control • Deuterated Surrogates	Yes	The deuterated surrogate recoveries were within the method acceptance criteria.
Field Quality Control • Trip Blank/Field Blank TB-022719 • Field Duplicate 5P-MW101-159/5P-MW101-159-Y • Equipment Blank NA	No	<p>Trip Blank (VOCs Only)</p> <p>With the exceptions listed in Table 2, target analytes were not detected in the trip blank.</p> <p>Field Duplicate</p> <p>The frequency of field duplicates met the QAPP requirement of one per twenty samples.</p> <p>The comparison between results of the field duplicate pair met the criteria listed below.</p> <ul style="list-style-type: none"> • When both the sample and duplicate values are $>5x$ reporting limit (RL), acceptable sampling and analytical precision is indicated by an RPD between the results of $\leq 30\%$. • Where the result for one or both analytes of the field duplicate pair is $<5xRL$, satisfactory precision is indicated if the absolute difference between the field duplicate results is $<2xRL$. <p>Equipment Blank</p> <p>As dedicated equipment was used to collect these samples, an equipment blank was not submitted for this sampling event. Further action was not necessary.</p>
Reporting Limits Met?	Yes	Samples 5P-MW101-159 and 5P-MW101-159-Y required dilutions for tetrachloroethene results exceeding the calibration range. Only the results within the calibration range were selected for reporting from the dilution. Therefore, no results were reported as non-detect at elevated RLs.
Tentatively Identified Compounds (TICs)	NA	<p>Method SOM02.4 VOCs</p> <p>A TIC search was conducted in association with the VOC analysis for the samples in this package. If the TIC library search resulted in a 85% or greater match to the reference spectrum and the TIC was reported as an identified compound, the TIC result was qualified as estimated (J ID-I). If the quality of the match was less than 85% or the analyte was reported as an "unknown", the TIC result was qualified as tentatively identified and estimated (NJ ID-I).</p> <p>The TIC analyte, 2-ethyl -1-hexanol was qualitatively identified (Qual) in sample 5P-MW107D-200 (Qual = 78%). Therefore, as the qualitative value was less than 85%, the associated 2-ethyl -1-hexanol result was qualified as estimated (NJ ID-I).</p>

Review Parameter	Criteria Met?	Comment
Laboratory Performance Review		
Initial Calibration	Yes	<p>Method SOM02.4 VOCs</p> <p>The initial calibrations (ICALs) for target analytes and associated percent relative standard deviations (%RSD) were within the method control limits.</p>
Tuning (as applicable to the method)	Yes	<p>Method SOM02.4 VOCs</p> <p>A satisfactory tuning event was conducted at the beginning of every 12 hours of sample analysis. Data qualification on the basis of instrument tuning was not necessary.</p>
Initial Calibration Verification (ICV)/Continuing Calibration Verification	Yes	<p>Method SOM02.4 VOCs</p> <p>The percent difference (%D) for the target analytes in the ICV and opening and closing CCVs were within the method control limits.</p>
Internal Standard	Yes	<p>The recoveries for the internal standards in field samples were within the applicable acceptance limits. Therefore, data qualification based on internal standards was not necessary.</p>
Laboratory Control Sample/ Laboratory Control Sample Duplicate	NA	<p>Per the method, a laboratory control sample is not applicable to this method.</p>
Target Compound Identification	Yes	<p>Method SOM02.4 VOCs</p> <p>The quantitation sheets and total ion chromatograms were reviewed to assure that compounds reported as identified meet the criteria contained in the method. The mass spectra were reviewed for compounds reported as identified to check that the reported mass spectral data meet the mass spectral identification criteria contained in the analytical method. No errors in compound identification were found and data qualification was not necessary.</p>
Transcription Errors	Yes	<p>Transcription errors were not found in this data package. Data qualification was not necessary.</p>
Package Completeness	Yes	<p>The results are usable as qualified for the project objective, and are 100% complete.</p>

> – Greater Than

< – Less Than

≤ – Less Than or Equal To

°C – Degrees Celsius

% – Percent

%D – Percent Difference

%RSD – Percent Relative Standard Deviation

CCV – Continuing Calibration Verification

COC – Chain of Custody

I – Indeterminate Bias

ICAL – Initial Calibration

ICV – Initial Calibration Verification

ID – Identification

MS/MSD – Matrix Spike/ Matrix Spike Duplicate

NA – Not Applicable

NJ – Tentatively Identified

QAPP – Quality Assurance Project Plan

Qual – Qualitatively Identified

RL – Reporting Limit

RPDs – Relative Percent Differences

TIC – Tentatively Identified Compounds

VOCs – Volatile Organic Compounds

Table 1: MS/MSD Recovery and RPD Outliers and Resultant Data Qualification

Associated Sample	Analyte	%R (Limits)	RPD (Limit)	Qualification
VOCs				
5P-MW105-143	Benzene	83/ 74 (76-127)	12 (11)	As the potential bias was considered to be low and the RPD was outside the control limits, the associated sample result was qualified as estimated (UJ MS-L).

%R – Percent Recoveries

RPD – Relative Percent Difference

L – Low Bias

UJ/J – Estimated

MS/MSD – Matrix Spike Matrix Spike Duplicate

Bold indicates a value that is outside of acceptance limits.**Table 2: Trip Blank Outliers and Resultant Data Qualification**

Associated Samples	Analyte	Concentration	Qualification
VOCs			
TB-022719 5P-MW1071-145 5P-MW107D-200 5P-MW106I-145 5P-MW106D195 5P-MW109I-169 5P-MW109D-230 5P-MW108I-149 5P-MW108D-215 5P-MW110I-208 5P-MW110D-301 5P-MW101-159 5P-MW101-159 DL 5P-MW101-159-Y 5P-MW101-159-Y DL 5P-MW105-143 5P-MW104-120	Chloromethane	3.0 µg/L	The associated sample results reported at concentrations <5x the concentration of the blank contamination were qualified as non-detect (U TB-I) at the reported concentration for results reported at concentrations greater than the RL (0.50 µg/L) or the RL for results reported at concentrations less than the RL (0.50 µg/L).
	Acetone	38 µg/L	The associated sample results reported at concentrations <10x the concentration of the blank contamination were qualified as non-detect (U TB-I) at the reported concentration for results reported at concentrations greater than the RL (5 µg/L) or the RL for results reported at concentrations less than the RL (5 µg/L).

< – Less Than

DL – Dilution

U – Non-detect

µg/L – Microgram per Liter

RL – Reporting Limit

VOCs – Volatile Organic Compounds

I – Indeterminate Bias

TB – Trip Blank

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

TB-022719

Lab Name: <u>ALS Environmental (SLC)</u>	Contract: <u>97756</u>
Lab Code: <u>ALS</u>	MA No.: _____ SDG No.: <u>TV219</u>
Analytical Method: <u>Trace VOA</u>	Level: <u>TRACE</u>
Matrix: <u>WATER</u>	Lab Sample ID: <u>1905930001</u>
Sample wt/vol: <u>25.0</u> (g/mL) <u>mL</u>	Lab File ID: <u>FF70T001</u>
% Solids: _____	Date Received: <u>02/27/2019</u>
GC Column: <u>RTX-VMS</u> ID: <u>0.25</u> (mm)	Date Extracted: _____
GC Column: _____ ID: _____ (mm)	Date Analyzed: <u>03/07/2019</u>
Extract Concentrated:(Y/N) _____	Extract Volume: _____ (uL)
Soil Aliquot (VOA): _____ (uL)	Extraction Type: <u>PT</u>
Heated Purge:(Y/N) <u>Y</u>	Injection Volume: _____ (uL)
Purge Volume: <u>25.0</u> (mL)	pH: <u>1.0</u> Dilution Factor: <u>1.0</u>
Cleanup Types: _____	Cleanup Factor: _____
Concentration Units (ug/L, mg/L, ug/kg): <u>ug/L</u>	

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	3.0	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	38.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

ba 4/9/19

FORM 1A-OR

SOM02_4 (10/2016)
00154

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

TB-022719

Lab Name: <u>ALS Environmental (SLC)</u>	Contract: <u>97756</u>
Lab Code: <u>ALS</u>	MA No.: _____ SDG No.: <u>TV219</u>
Analytical Method: <u>Trace VOA</u>	Level: <u>TRACE</u>
Matrix: <u>WATER</u>	Lab Sample ID: <u>1905930001</u>
Sample wt/vol: <u>25.0</u> (g/mL) mL	Lab File ID: <u>FF70T001</u>
% Solids: _____	Date Received: <u>02/27/2019</u>
GC Column: <u>RTX-VMS</u> ID: <u>0.25</u> (mm)	Date Extracted: _____
GC Column: _____ ID: _____ (mm)	Date Analyzed: <u>03/07/2019</u>
Extract Concentrated:(Y/N) _____	Extract Volume: _____ (uL)
Soil Aliquot (VOA): _____ (uL)	Extraction Type: <u>PT</u>
Heated Purge:(Y/N) <u>Y</u>	Injection Volume: _____ (uL)
Purge Volume: <u>25.0</u> (mL)	pH: <u>1.0</u> Dilution Factor: <u>1.0</u>
Cleanup Types: _____	Cleanup Factor: _____
Concentration Units (ug/L, mg/L, ug/kg): <u>ug/L</u>	

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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FORM 1A-OR

SOM02.4 (10/2016)
00155

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB-022719

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930001
 Lab File ID: FF70T001
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BR 4/1/19

FORM 1B-OR

SOM02.4 (10/2016)
00156

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW107I-145

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L
 Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930002
 Lab File ID: FF50T002
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>HTB-I</u>	<u>0.50</u> <u>0.18</u>	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>u TB-I</u>	26.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

BR 4/9/19

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW107I-145

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930002
 Lab File ID: FF50T002
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene <i>J SQL-I</i>	0.35	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

For 4/9/19

FORM 1A-OR

SOM024 (10/2016)
00100

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW107I-145

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930002
 Lab File ID: FF50T002
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
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17				
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20				
21				
22				
23				
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25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

4/9/19

FORM 1B-OR

SOM02.4 (10/2016)
EPA FORM 1B-OR

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW107D-200

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids: _____
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930003
 Lab File ID: FF51T003
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>u TB-I</u>	0.97	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>u TB-I</u>	15.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

BR 4/9/19

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW107D-200

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L
 Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930003
 Lab File ID: FF51T003
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene <u>J SQL-I</u>	0.44	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

be 4/9/19

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW107D-200

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930003
 Lab File ID: FF51T003
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume:
 Extraction Type: PT
 Injection Volume:
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS No.	ANALYTE	RT	EST. CONC.	Q
01	Unknown 1-Hexanol, 2-ethyl- <i>N.J ID-I</i>	13.14	0.79	J
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes	N/A		

¹ EPA-designated Registry Number.

4/9/19

FORM 1B-OR

SOM02 4-(10/2016)

00052

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW106I-145

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930004
 Lab File ID: FF52T004
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>U TB-I</u>	<u>0.50</u> 0.38	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>U TB-I</u>	<u>5.0</u> -2.4	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene <u>T SQL-I</u>	0.12	J
108-87-2	Methylcyclohexane	0.50	U

BL 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00082

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW106I-145

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930004
 Lab File ID: FF52T004
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	3.4	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

Par 4/9/19

FORM 1A-OR

SOM02_4 (10/2016)
: 00083

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW106I-145

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930004
 Lab File ID: FF52T004
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume:
 Extraction Type: PT
 Injection Volume:
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
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E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BL 4/9/19

FORM 1B-OR

SOM02_4 (10/2016)
: 00084

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW106D-195

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930005
 Lab File ID: FF53T005
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>u TB-I</u>	0.50	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>u TB-I</u>	5.0	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

BR 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
00074

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW106D-195

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930005
 Lab File ID: FF53T005
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.1	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

BR 4/9/19

FORM 1A-OR

SOM02_4 (10/2016)
: 00075

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW106D-195

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930005
 Lab File ID: FF53T005
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume:
 Extraction Type: PT
 Injection Volume:
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
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30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BR 4/9/19 FORM 1B-OR

SOM02_4 (10/2016)
00076

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW1091-169

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L
 Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930006
 Lab File ID: FF54T006
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>U TB-I</u>	1.1	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>U TB-I</u>	5.5	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

Br 4/9/19

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW109I-169

Lab Name: <u>ALS Environmental (SLC)</u>	Contract: <u>97756</u>
Lab Code: <u>ALS</u>	MA No.: _____ SDG No.: <u>TV219</u>
Analytical Method: <u>Trace VOA</u>	Level: <u>TRACE</u>
Matrix: <u>WATER</u>	Lab Sample ID: <u>1905930006</u>
Sample wt/vol: <u>25.0</u> (g/mL) <u>mL</u>	Lab File ID: <u>FF54T006</u>
% Solids:	Date Received: <u>02/27/2019</u>
GC Column: <u>RTX-VMS</u> ID: <u>0.25</u> (mm)	Date Extracted: _____
GC Column: _____ ID: _____ (mm)	Date Analyzed: <u>03/06/2019</u>
Extract Concentrated: (Y/N) _____	Extract Volume: _____ (uL)
Soil Aliquot (VOA): _____ (uL)	Extraction Type: <u>PT</u>
Heated Purge: (Y/N) <u>Y</u>	Injection Volume: _____ (uL)
Purge Volume: <u>25.0</u> (mL)	pH: <u>1.0</u> Dilution Factor: <u>1.0</u>
Cleanup Types: _____	Cleanup Factor: _____
Concentration Units (ug/L, mg/L, ug/kg): <u>ug/L</u>	

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.1	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

BL 4/9/19

FORM 1A-OR

SOM024 (10/2016)
00132

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW109I-169

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930006
 Lab File ID: FF54T006
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
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29				
30				
<u>E966796¹</u>	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BR 4/9/19

FORM 1B-OR

SOM02.4 (10/2016)
00133

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW109D-230

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930007
 Lab File ID: FF55T007
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume: (uL)
 Extraction Type: PT
 Injection Volume: (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>U TB-I</u>	1.2	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>U TB-I</u>	9.1	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane <u>J SOL-I</u>	0.32	J
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

BL 4/9/19

FORM 1A-OR

SQM024 (10/2016)
00123

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW109D-230

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930007
 Lab File ID: FF55T007
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.53	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

bc 4/9/19

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW109D-230

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930007
 Lab File ID: FF55T007
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
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30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BL 4/9/19

FORM 1B-OR

SOM024 (10/2016)
00125

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW108I-149

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930008
 Lab File ID: FF56T008
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>UTB-I</u>	0.59	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>UTB-I</u>	5.0 <u>2.2</u>	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

AR 4/9/19

FORM 1A-OR

SOM024 (10/2016)
00115

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW108I-149

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930008
 Lab File ID: FF56T008
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.58	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW108I-149

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930008
 Lab File ID: FF56T008
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume:
 Extraction Type: PT
 Injection Volume:
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

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FORM 1B-OR

SQM02_4 (10/2016)
00117

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW108D-215

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids: _____
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930009
 Lab File ID: FF57T009
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>4 TB-I</u>	<u>0.50</u> <u>0.36</u>	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>4 TB-I</u>	<u>5.0</u> <u>1.5</u>	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

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FORM 1A-OR

SOM02_4 (10/2016)
00107

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW108D-215

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930009
 Lab File ID: FF57T009
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	3.2	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW108D-215

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA): (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930009
 Lab File ID: FF57T009
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume: (uL)
 Extraction Type: PT
 Injection Volume: (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
	<u>E966796¹</u>			
	<u>Total Alkanes</u>		<u>N/A</u>	

¹ EPA-designated Registry Number.

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FORM 1B-OR

SOM024 (10/2016)
5P-MW108D-215

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW110I-208

Lab Name:	ALS Environmental (SLC)	Contract:	97756
Lab Code:	ALS	MA No.:	SDG No.: TV219
Analytical Method:	Trace VOA	Level:	TRACE
Matrix:	WATER	Lab Sample ID:	1905930010
Sample wt/vol:	25.0 (g/mL) mL	Lab File ID:	FF58T010
% Solids:		Date Received:	02/27/2019
GC Column:	RTX-VMS	ID:	0.25 (mm)
GC Column:		ID:	
Extract Concentrated:(Y/N)		Date Extracted:	
Soil Aliquot (VOA):		Date Analyzed:	03/06/2019
Heated Purge:(Y/N)	Y	Extract Volume:	
Purge Volume:	25.0 (mL)	Extraction Type:	PT
Cleanup Types:		Injection Volume:	
Concentration Units (ug/L, mg/L, ug/kg):	ug/L	pH:	1.0 Dilution Factor: 1.0
Cleanup Factor:			

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <i>u TB-I</i>	0.83	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <i>u TB-I</i>	5.9	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

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FORM 1A-OR

SOM02.4 (10/2016)
00147

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW110I-208

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930010
 Lab File ID: FF58T010
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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FORM 1A-OR

SOM02.4 (10/2016)
: 60148

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW110I-208

Lab Name: ALS Environmental (SLC)
Lab Code: ALS Case No.: 5POINTS
Analytical Method: Trace VOA
Matrix: WATER
Sample wt/vol: 25.0 (g/mL) mL
% Solids:
GC Column: RTX-VMS ID: 0.25 (mm)
Extract Concentrated: (Y/N)
Soil Aliquot (VOA): (uL)
Heated Purge: (Y/N) Y
Purge Volume: 25.0 (mL)
Cleanup Types:
Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
MA No.: _____ SDG No.: TV219
Level: TRACE
Lab Sample ID: 1905930010
Lab File ID: FF58T010
Date Received: 02/27/2019
Date Extracted: _____
Date Analyzed: 03/06/2019
Extract Volume: _____ (uL)
Extraction Type: PT
Injection Volume: _____ (uL)
pH: 1.0 Dilution Factor: 1.0
Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

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FORM 1B-OR

SOM02_4 (10/2016)
00149

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW110D-301

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930011
 Lab File ID: FF59T011
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>U Tb-I</u>	<u>0.50</u> 0.35	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>U Tb-I</u>	<u>5.0</u> 1.9	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

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FORM 1A-OR

SOM02_4 (10/2016)
00139

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW110D-301

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930011
 Lab File ID: FF59TC011
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene <u>T SQL-I</u>	0.26	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

BL 4/9/19

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW110D-301

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930011
 Lab File ID: FF59T011
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/06/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
	<u>E966796¹</u>			
	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

Par 4/9/19

FORM 1B-OR

:SOM02_4 (10/2016)
00141

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930012
 Lab File ID: FF72T012
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>U TB-I</u>	0.87	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>U TB-I</u>	24.	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene <u>T SQL-I</u>	0.17	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.51	
108-87-2	Methylcyclohexane	0.50	U

Par 4/9/19

FORM 1A-OR

SOM02_4 (10/2016)
00023

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159

Lab Name:	ALS Environmental (SLC)	Contract:	97756
Lab Code:	ALS	MA No.:	SDG No.: TV219
Analytical Method:	Trace VOA	Level:	TRACE
Matrix:	WATER	Lab Sample ID:	1905930012
Sample wt/vol:	25.0 (g/mL) mL	Lab File ID:	FF72T012
% Solids:		Date Received:	02/27/2019
GC Column:	RTX-VMS	Date Extracted:	
GC Column:	ID: 0.25 (mm)	Date Analyzed:	03/07/2019
Extract Concentrated:(Y/N)		Extract Volume:	(uL)
Soil Aliquot (VOA):	(uL)	Extraction Type:	PT
Heated Purge:(Y/N)	Y	Injection Volume:	(uL)
Purge Volume:	25.0 (mL)	pH:	1.0 Dilution Factor:
Cleanup Types:		Cleanup Factor:	
Concentration Units (ug/L, mg/L, ug/kg):	ug/L		

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene DNR	40.	E
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

DNR - Do not report

BAL 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00024

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW101-159

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930012
 Lab File ID: FF72T012
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/07/2019
 Extract Volume:
 Extraction Type: PT
 Injection Volume:
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
	<u>E966796¹</u>			
	<u>Total Alkanes</u>		<u>N/A</u>	

¹ EPA-designated Registry Number.

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159DL

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930012DL
 Lab File ID: FF65T012
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 4.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	<u>DNR</u>	2.0 U
74-87-3	Chloromethane <u>u TB-I</u>	<u>2.0</u> <u>0.87</u>	JD
75-01-4	Vinyl chloride	2.0	U
74-83-9	Bromomethane	2.0	U
75-00-3	Chloroethane	2.0	U
75-69-4	Trichlorofluoromethane	2.0	U
75-35-4	1,1-Dichloroethene	2.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U
67-64-1	Acetone <u>u TB-I</u>	<u>20</u> <u>0.5</u>	JD
75-15-0	Carbon disulfide	2.0	U
79-20-9	Methyl acetate	2.0	U
75-09-2	Methylene chloride	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U
1634-04-4	Methyl tert-butyl ether	2.0	U
75-34-3	1,1-Dichloroethane	2.0	U
156-59-2	cis-1,2-Dichloroethene	2.0	U
78-93-3	2-Butanone	20.	U
74-97-5	Bromochloromethane	2.0	U
67-66-3	Chloroform	2.0	U
71-55-6	1,1,1-Trichloroethane	2.0	U
110-82-7	Cyclohexane	2.0	U
56-23-5	Carbon tetrachloride	2.0	U
71-43-2	Benzene	2.0	U
107-06-2	1,2-Dichloroethane	2.0	U
79-01-6	Trichloroethene	0.37	JD
108-87-2	Methylcyclohexane	2.0	U

DNR - Do not report

BR 4/9/19

FORM 1A-OR

SOM02_4 (10/2016)
: 00032

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159DL

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930012DL
 Lab File ID: FF65T012
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 4.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	2.0	U
75-27-4	Bromodichloromethane	2.0	U
10061-01-5	cis-1,3-Dichloropropene	2.0	U
108-10-1	4-Methyl-2-Pentanone	20.	U
108-88-3	Toluene	2.0	U
10061-02-6	trans-1,3-Dichloropropene	2.0	U
79-00-5	1,1,2-Trichloroethane	2.0	U
127-18-4	Tetrachloroethene	24.	D
591-78-6	2-Hexanone	20.	U
124-48-1	Dibromochloromethane	2.0	U
106-93-4	1,2-Dibromoethane	2.0	U
108-90-7	Chlorobenzene	2.0	U
100-41-4	Ethylbenzene	2.0	U
95-47-6	o-Xylene	2.0	U
179601-23-1	m,p-Xylene	2.0	U
100-42-5	Styrene	2.0	U
75-25-2	Bromoform	2.0	U
98-82-8	Isopropylbenzene	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U
541-73-1	1,3-Dichlorobenzene	2.0	U
106-46-7	1,4-Dichlorobenzene	2.0	U
95-50-1	1,2-Dichlorobenzene	2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
120-82-1	1,2,4-Trichlorobenzene	2.0	U
87-61-6	1,2,3-Trichlorobenzene	2.0	U

BL 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00033

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW101-159DL

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930012DL
 Lab File ID: FF65T012
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 4.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

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FORM 1B-OR

SOM02.4 (10/2016)
00034

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159-Y

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930013
 Lab File ID: FF73T013
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>UTB-I</u>	0.83	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>UTB-I</u>	5.2	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene <u>TSAI-I</u>	0.16	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromoform	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.52	
108-87-2	Methylcyclohexane	0.50	U

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FORM 1A-OR

SOM02.4 (10/2016)
: 00040

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159-Y

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930013
 Lab File ID: FF73T013
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/07/2019
 Extract Volume: (uL)
 Extraction Type: PT
 Injection Volume: (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene <u>DNR</u>	41.	E
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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FORM 1A-OR

SOM02.4 (10/2016)
: 00041

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW101-159-Y

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930013
 Lab File ID: FF73T013
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BR 4/9/19

FORM 1B-OR

SOM02_4 (10/2016)
: 00042

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159-YDL

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930013DL
 Lab File ID: FF66T013
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 4.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	2.0	U
74-87-3	Chloromethane <u>UTB-I</u>	0.42	JD
75-01-4	Vinyl chloride	2.0	U
74-83-9	Bromomethane	2.0	U
75-00-3	Chloroethane	2.0	U
75-69-4	Trichlorofluoromethane	2.0	U
75-35-4	1,1-Dichloroethene	2.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U
67-64-1	Acetone	20.	U
75-15-0	Carbon disulfide	2.0	U
79-20-9	Methyl acetate	2.0	U
75-09-2	Methylene chloride	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U
1634-04-4	Methyl tert-butyl ether	2.0	U
75-34-3	1,1-Dichloroethane	2.0	U
156-59-2	cis-1,2-Dichloroethene	2.0	U
78-93-3	2-Butanone	20.	U
74-97-5	Bromochloromethane	2.0	U
67-66-3	Chloroform	2.0	U
71-55-6	1,1,1-Trichloroethane	2.0	U
110-82-7	Cyclohexane	2.0	U
56-23-5	Carbon tetrachloride	2.0	U
71-43-2	Benzene	2.0	U
107-06-2	1,2-Dichloroethane	2.0	U
79-01-6	Trichloroethene	0.36	JD
108-87-2	Methylcyclohexane	2.0	U

Be 4/9/19

FORM 1A-OR

SOM024 (10/2016)
00049

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW101-159-YDL

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930013DL
 Lab File ID: FF66T013
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 4.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	2.0	U
75-27-4	Bromodichloromethane	2.0	U
10061-01-5	cis-1,3-Dichloropropene	2.0	U
108-10-1	4-Methyl-2-Pentanone	20.	U
108-88-3	Toluene	2.0	U
10061-02-6	trans-1,3-Dichloropropene	2.0	U
79-00-5	1,1,2-Trichloroethane	2.0	U
127-18-4	Tetrachloroethene	29.	D
591-78-6	2-Hexanone	20.	U
124-48-1	Dibromochloromethane	2.0	U
106-93-4	1,2-Dibromoethane	2.0	U
108-90-7	Chlorobenzene	2.0	U
100-41-4	Ethylbenzene	2.0	U
95-47-6	o-Xylene	2.0	U
179601-23-1	m,p-Xylene	2.0	U
100-42-5	Styrene	2.0	U
75-25-2	Bromoform	2.0	U
98-82-8	Isopropylbenzene	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U
541-73-1	1,3-Dichlorobenzene	2.0	U
106-46-7	1,4-Dichlorobenzene	2.0	U
95-50-1	1,2-Dichlorobenzene	2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
120-82-1	1,2,4-Trichlorobenzene	2.0	U
87-61-6	1,2,3-Trichlorobenzene	2.0	U

BR 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00050

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW101-159-YDL

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA): (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930013DL
 Lab File ID: FF66T013
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/07/2019
 Extract Volume: (uL)
 Extraction Type: PT
 Injection Volume: (uL)
 pH: 1.0 Dilution Factor: 4.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
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19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
	<u>E966796¹</u>	<u>Total Alkanes</u>	<u>N/A</u>	

¹ EPA-designated Registry Number.

BL 4/9/19

FORM 1B-OR

SOM02.4 (10/2016)
: 00051

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW105-143

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: ID: (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930014
 Lab File ID: FF67T014
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>UTB-I</u>	<u>0.50</u> <u>0.42</u>	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>UTB-I</u>	5.8	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene <u>UT MS-L</u>	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

BL 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00066

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW105-143

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930014
 Lab File ID: FF67T014
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.9	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

BL 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00067

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW105-143

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930014
 Lab File ID: FF67T014
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
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26				
27				
28				
29				
30				
	<u>E966796¹</u> Total Alkanes		<u>N/A</u>	

¹ EPA-designated Registry Number.

Par 4/9/19

FORM 1B-OR

SOM02.4 (10/2016)
: 00068

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW104-120

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated: (Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge: (Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types: _____
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930017
 Lab File ID: FF71T017
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane <u>U TB-I</u>	1.0	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone <u>U TB-I</u>	5.2	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform <u>J SQL-I</u>	0.35	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride <u>J SQL-I</u>	0.14	J
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U

BR 4/9/19

FORM 1A-OR

SOM024 (10/2016)
: 00057

FORM 1A-OR
ORGANIC ANALYSIS DATA SHEET
TARGET ANALYTE LIST

EPA SAMPLE NO.

5P-MW104-120

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 GC Column: _____ ID: _____ (mm)
 Extract Concentrated:(Y/N) _____
 Soil Aliquot (VOA): _____ (uL)
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, mg/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930017
 Lab File ID: FF71T017
 Date Received: 02/27/2019
 Date Extracted: _____
 Date Analyzed: 03/07/2019
 Extract Volume: _____ (uL)
 Extraction Type: PT
 Injection Volume: _____ (uL)
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor: _____

CAS NO.	ANALYTE	CONCENTRATION	Q
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	12.	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

BR 4/9/19

FORM 1A-OR

SOM02.4 (10/2016)
: 00058

FORM 1B-OR
ORGANIC ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

5P-MW104-120

Lab Name: ALS Environmental (SLC)
 Lab Code: ALS Case No.: 5POINTS
 Analytical Method: Trace VOA
 Matrix: WATER
 Sample wt/vol: 25.0 (g/mL) mL
 % Solids:
 GC Column: RTX-VMS ID: 0.25 (mm)
 Extract Concentrated:(Y/N)
 Soil Aliquot (VOA):
 Heated Purge:(Y/N) Y
 Purge Volume: 25.0 (mL)
 Cleanup Types:
 Concentration Units (ug/L, ug/kg): ug/L

Contract: 97756
 MA No.: _____ SDG No.: TV219
 Level: TRACE
 Lab Sample ID: 1905930017
 Lab File ID: FF71T017
 Date Received: 02/27/2019
 Date Extracted:
 Date Analyzed: 03/07/2019
 Extract Volume:
 Extraction Type: PT
 Injection Volume:
 pH: 1.0 Dilution Factor: 1.0
 Cleanup Factor:

CAS No.	ANALYTE	RT	EST. CONC.	Q
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
E966796 ¹	Total Alkanes		N/A	

¹ EPA-designated Registry Number.

BL 4/9/19

FORM 1B-OR

SOM02.4 (10/2016)
: 00059

Attachment 4

**Monitoring Well and Water Level/PCE
Information and Hydrographs**

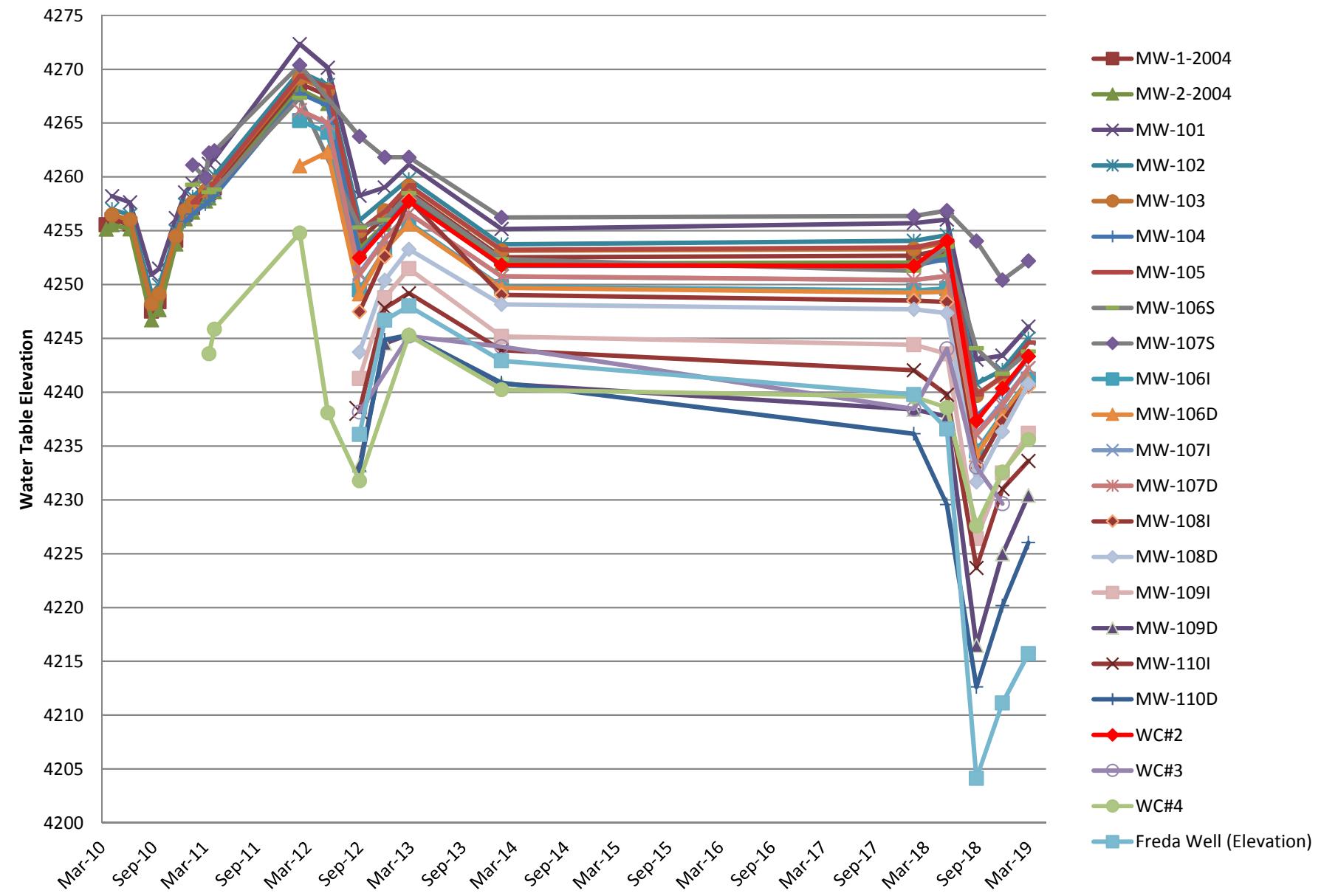
Attachment 4 - Well Hydrographs
Five Points PCE Plume Site
PCE Concentrations and Water Table Elevations

DTW	Sample	MW 1-2004			MW 2-2004			MW-101			MW-102			MW-103				
		Date	Date	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L
3/16/2010	NA	100.65	4255.55	NA	103.53	4255.13	NA											
4/6/2010	4/6/2010	100.17	4256.03	2.6	103.1	4255.56	0.31	143.32	4258.21	7	106.89	4257.01	0	103.5	4256.47	0		
6/9/2010	NA	100.58	4255.62	NA	103.49	4255.17	NA	143.88	4257.65	NA	107.45	4256.45	NA	103.95	4256.02	NA		
8/24/2010	NA	108.68	4247.52	NA	111.95	4246.71	NA	150.61	4250.92	NA	114.76	4249.14	NA	111.74	4248.23	NA		
9/20/2010	9/20/2010	107.8	4248.40	9.3	111	4247.66	0.73	150.05	4251.48	37	113.96	4249.94	0	110.85	4249.12	0.13		
11/18/2010	NA	102.1	4254.10	NA	104.91	4253.75	NA	145.36	4256.17	NA	108.95	4254.95	NA	105.5	4254.47	NA		
12/21/2010	NA	99.68	4256.52	NA	102.56	4256.10	NA	142.97	4258.56	NA	106.49	4257.41	NA	103.08	4256.89	NA		
1/17/2011	1/27/2011	99.04	4257.16	3.6	101.95	4256.71	0.32	142.17	4259.36	31	105.73	4258.17	NA	102.36	4257.61	0.18		
3/3/2011	NA	97.98	4258.22	NA	100.92	4257.74	NA	140.89	4260.64	NA	104.66	4259.24	NA	101.28	4258.69	NA		
3/16/2011	NA	97.65	4258.55	NA	100.63	4258.03	NA	140.3	4261.23	NA	104.25	4259.65	NA	100.91	4259.06	NA		
4/4/2011	NA	97.2	4259.00	NA	100.05	4258.61	NA	139.82	4261.71	NA	103.75	4260.15	NA	100.46	4259.51	NA		
1/31/2012	2/2/2012	87.52	4268.68	39	90.54	4268.12	0.92	129.18	4272.35	12	94.1	4269.80	NA	90.8	4269.17	0.19		
5/10/2012	5/15/2012	88.64	4267.56	13	91.85	4266.81	1.5	131.38	4270.15	8	95.35	4268.55	NA	91.93	4268.04	0.19		
8/30/2012	8/30/2012	102.04	4254.16	46	105.36	4253.30	1.4	143.28	4258.25	1.4	107.95	4255.95	NA	104.98	4254.99	0.35		
11/28/2012	11/28/2012	99.91	4256.29	22	103.05	4255.61	1	142.51	4259.02	2.3	NA	NA	NA	103.12	4256.85	0.15		
2/21/2013	2/26/2013	97.54	4258.66	21	100.56	4258.10	2.2	140.37	4261.16	2.1	104.11	4259.79	NA	100.81	4259.16	0		
1/16/2014	1/28/2014	103.68	4252.52	9.5	106.7	4251.96	0.25	146.37	4255.16	14	110.17	4253.73	NA	106.84	4253.13	0.14		
1/17/2018	2/16/2018	103.52	4252.68	3.7	106.61	4252.05	0.19	145.81	4255.72	13	109.84	4254.06	NA	106.68	4253.29	0.17		
5/14/2018	5/16/2018	102.88	4253.32	1.4	105.93	4252.73	0.17	145.48	4256.05	27	109.32	4254.58	NA	106.07	4253.90	0.17		
8/27/2018	8/29/2018	NA	NA	NA	NA	NA	NA	158.5	4243.03	23	123.1	4240.80	NA	120.27	4239.70	<0.50		
11/27/2018	11/29/2018	NA	NA	NA	NA	NA	NA	158.12	4243.41	21	121.84	4242.06	NA	118.57	4241.40	0.19 J		
2/25/2019	2/27/2019	NA	NA	NA	NA	NA	NA	155.43	4246.10	29	118.92	4244.98	NA	NM	NM	NS		
DTW	Sample	MW-107S			MW-107I			MW-107D			MW-108I			MW-108D				
Date	Date	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L		
3/16/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4/6/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
6/9/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8/24/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9/20/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11/18/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
12/21/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1/17/2011	1/27/2011	46.16	4261.11	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
3/3/2011	NA	47.38	4259.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
3/16/2011	NA	45.04	4262.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4/4/2011	NA	44.86	4262.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1/31/2012	2/2/2012	36.89	4270.38	0	40.70	4266.19	1.2	40.76	4266.19	1.4	NA							
5/10/2012	5/15/2012	NA	NA	NA	42.00	4264.89	1	41.94	4265.01	1.3	NA							
8/30/2012	8/30/2012	43.50	4263.77	NA	55.82	4251.07	1.1	56.04	4250.91	1.7	36.99	4247.47	1.00	40.74	4243.73	7.2		
11/28/2012	11/28/2012	45.45	4261.82	NA	52.60	4254.29	1.2	52.81	4254.14	1.5	31.85	4252.61	0.71	34.08	4250.39	4.7		
2/21/2013	2/26/2013	45.44	4261.83	NA	50.28	4256.61	1.2	50.34	4256.61	2.3	26.6	4257.86	0.88	31.19	4253.28	6.5		
1/16/2014	1/28/2014	51.03	4256.24	NA	56.15	4250.74	1.3	56.17	4250.78	1.7	35.42	4249.04	0.93	36.31	4248.16	5.9		
1/17/2018	2/16/2018	50.90	4256.37	NA	56.48	4250.41	0.											

Attachment 4 - Well Hydrographs
Five Points PCE Plume Site
PCE Concentrations and Water Table Elevations

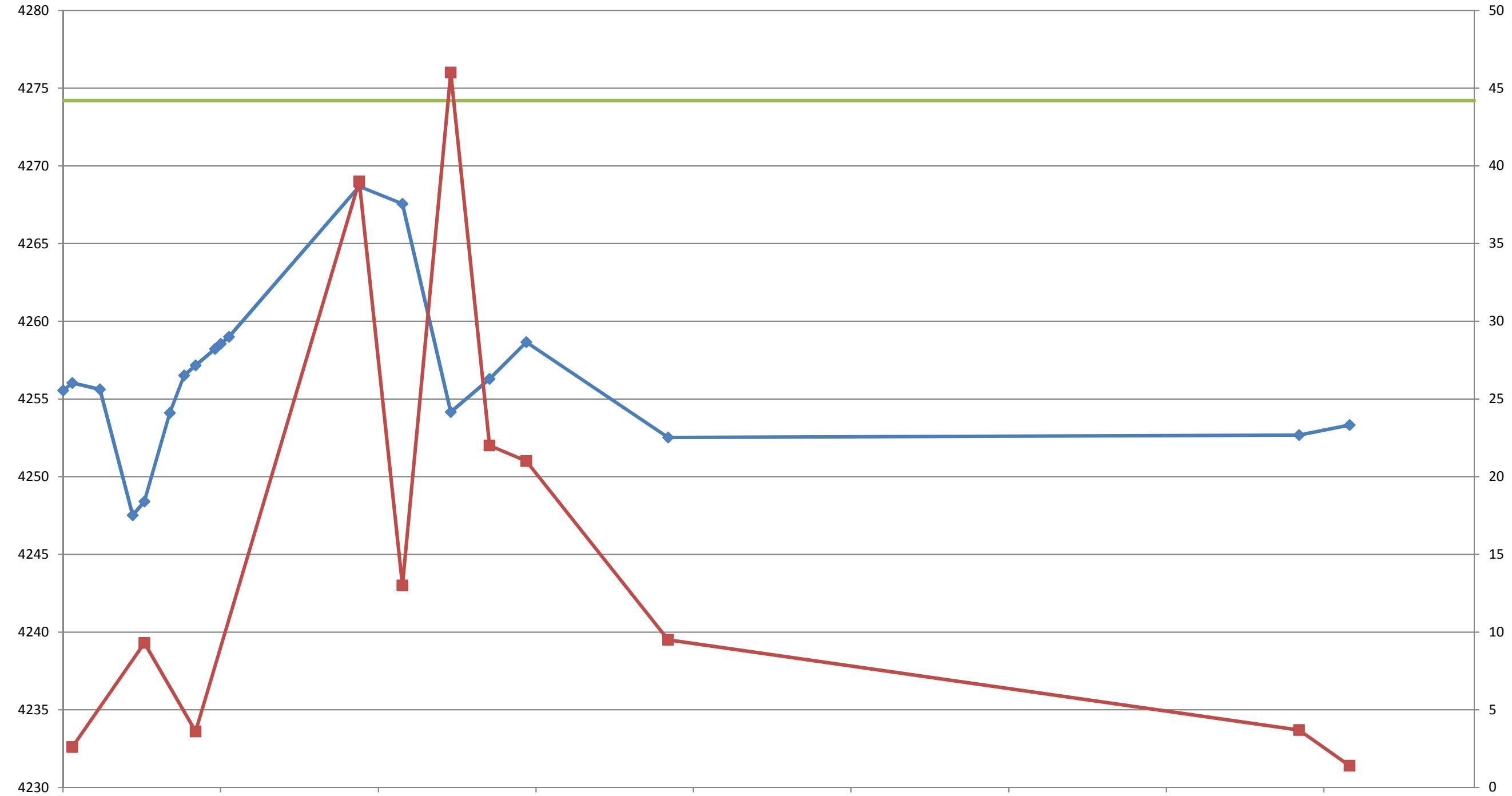
DTW	Sample	MW-104			MW-105			MW-106S			MW-106I			MW-106D			
		Date	Date	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)
3/16/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/6/2010	4/6/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/24/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/20/2010	9/20/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/18/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/21/2010	NA	83.61	4255.86	NA													
1/17/2011	1/27/2011	82.92	4256.55	19	127.06	4257.63	0.9	45.91	4259.27	0	NA						
3/3/2011	NA	82	4257.47	NA	125.92	4258.77	NA	45.41	4259.77	NA							
3/16/2011	NA	81.72	4257.75	NA	125.56	4259.13	NA	46.6	4258.58	NA							
4/4/2011	NA	81.23	4258.24	NA	125.15	4259.54	NA	46.36	4258.82	NA							
1/31/2012	2/2/2012	71.7	4267.77	26	115.3	4269.39	0.76	37.84	4267.34	0	39.94	4265.22	9.6	44.16	4261.01	1.0	
5/10/2012	5/15/2012	72.85	4266.62	14	116.37	4268.32	0.26	NA	NA	NA	41.02	4264.14	7.8	42.85	4262.32	1.2	
8/30/2012	8/30/2012	86.59	4252.88	18	129.67	4255.02	0.18	49.89	4255.29	NA	55.67	4249.49	8.4	56.05	4249.12	2.2	
11/28/2012	11/28/2012	84.02	4255.45	14	127.91	4256.78	0.18	49.16	4256.02	NA	51.94	4253.22	4.6	51.9	4253.27	2.1	
2/21/2013	2/26/2013	81.6	4257.87	21	125.48	4259.21	0.16	46.7	4258.48	NA	49.39	4255.77	6.7	49.55	4255.62	2.7	
1/16/2014	1/28/2014	87.73	4251.74	18	131.46	4253.23	0.36	52.84	4252.34	NA	55.36	4249.80	7.3	55.48	4249.69	2.2	
1/17/2018	2/16/2018	87.72	4251.75	5.0	131.25	4253.44	2.6	53.91	4251.27	NA	55.71	4249.45	2.0	55.91	4249.26	0.38	
5/14/2018	5/16/2018	87.08	4252.39	8.4	130.6	4254.09	2.2	51.67	4253.51	NA	55.54	4249.62	0.9	55.84	4249.33	1.2	
8/27/2018	8/29/2018	101.72	4237.75	5.3	144.91	4239.78	2.1	61.1	4244.08	NA	70.63	4234.53	1.8	70.98	4234.19	2.3	
11/27/2018	11/29/2018	99.4	4240.07	3.4	143.23	4241.46	1.1	63.46	4241.72	NA	67.17	4237.99	0.45 J	67.35	4237.82	1.8	
2/25/2019	2/27/2019	96.22	4243.25	12	140.09	4244.60	1.9	61.41	4243.77	NA	63.95	4241.21	3.4	64.06	4241.11	1.1	
DTW	Sample	MW-109I			MW-109D			MW-110I			MW-110D						
		Date	Date	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L	DTW (ft)	WTE (ft)	PCE ug/L		
3/16/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/6/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/24/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/20/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/18/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/21/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/17/2011	1/27/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/3/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/16/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/4/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/31/2012	2/2/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/10/2012	5/15/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/30/2012	8/30/2012	43.13	4241.26	0.59	51.23	4233.19	0.26	31.2	4238.26	0.3	36.79	4232.68	2.2				
11/28/2012	11/28/2012	35.62	4248.77	1.2	39.9	4244.52	0.21	21.66	4247.80	0	24.6	4244.87	2.2				
2/21/2013	2/26/2013	32.91	4251.48	1.5	39.06	4245.36	0.6	20.26	4249.20	0.12	24.15	4245.32	2.6				
1/16/2014	1/28/2014	39.21	4245.18	1	43.63	4240.79	0.66	25.56	4243.90	0	28.59	4240.88	2.0				
1/17/2018	2/16/2018	39.99	4244.40	0.73	46.02	4238.4	0.98	27.41	4242.05	0	33.34	4236.13	0.67				
5/14/2018	5/16/2018	40.83	4243.56	0.46	46.65	4237.77	0.64	29.7	4239.76	0	39.91	4229.56	0.43				
8/27/2018	8/29/2018	58	4226.39	1.5	67.96	4216.46	0.36	45.78	4223.68	<0.50	56.86	4212.61	0.56				
11/27/2018	11/29/2018	51.9	4232.49	0.57	59.46	4224.96	0.40 J	38.45	4231.01	<0.50	49.3	4220.17	0.39				
2/25/2019	2/27/2019	48.2	4236.19	1.1													

Well Hydrographs



MW 1-2004

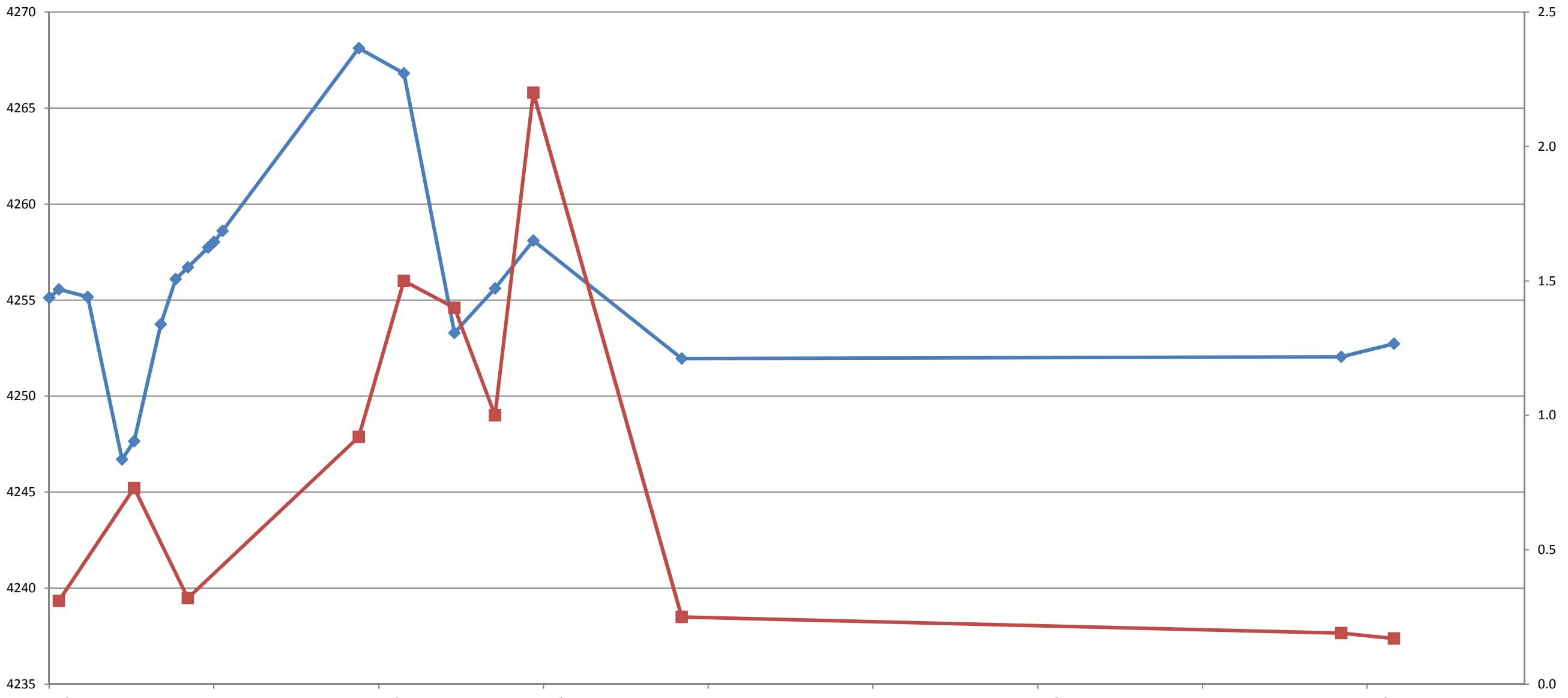
Well Installed
2004



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19	
Water Table Elevation (ft)	4255.55	4256.03	4255.62	4247.52	4248.40	4254.10	4256.52	4257.16	4258.22	4258.55	4259.00	4268.68	4267.56	4254.16	4256.29	4258.66	4252.52	4252.68	4253.32			
Top of Screen (Ft)	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	4274.2	
PCE Conc. (ug/L)					2.60			9.30				3.60			39.00	13.00	46.00	22.00	21.00	9.50	3.70	1.40

**Well Installed
2004**

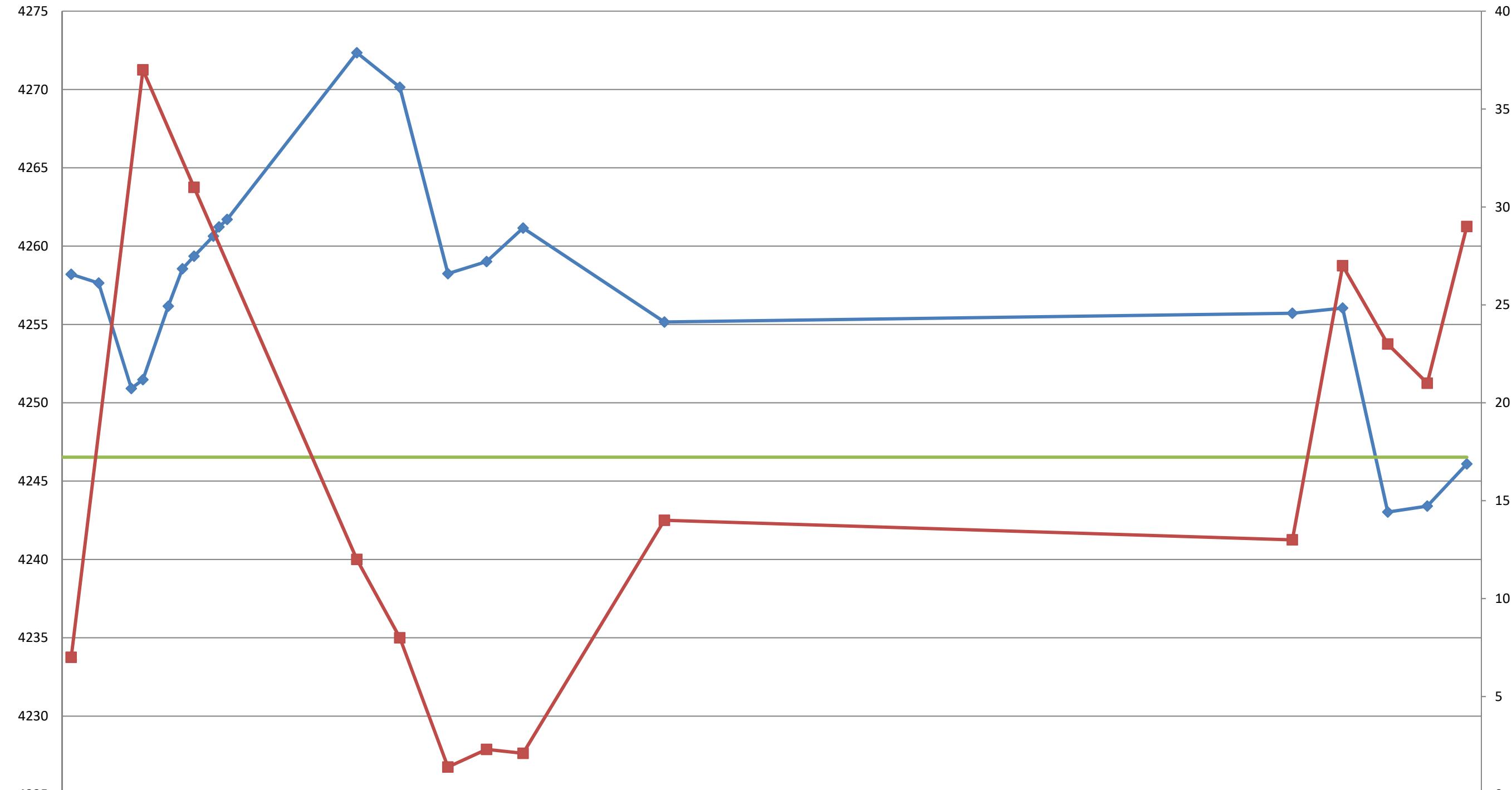
MW 2-2004



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Mar-12	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
Water Table Elevation (ft)	4255.13	4255.56	4255.17	4246.71	4247.66	4253.75	4256.10	4256.71	4257.74	4258.03	4258.61	4268.12	4266.81	4253.30	4255.61	4258.10	4251.96	4252.05	4252.73			
PCE Conc. (ug/L)		0.31			0.73			0.32				0.92	1.50	1.40	1.00	2.20	0.25	0.19	0.17			

Well Installed
3/10/2010

MW-101

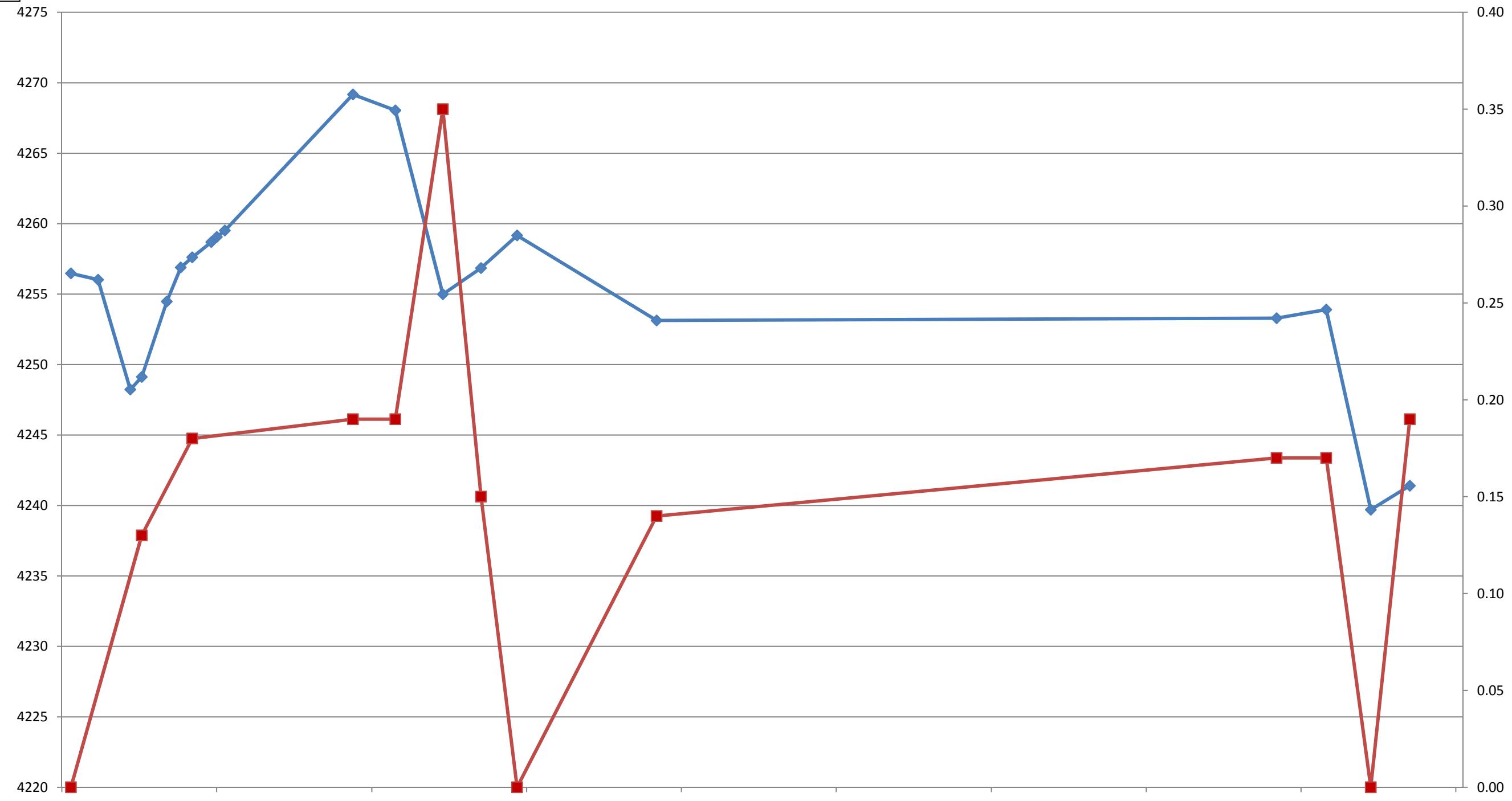


	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
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Water Table Elevation (ft)	4258.21	4257.65	4250.92	4251.48	4256.17	4258.56	4259.36	4260.64	4261.23	4261.71	4272.35	4270.15	4258.25	4259.02	4261.16	4255.16	4255.72	4256.05	4243.03	4243.41	4246.10		
Top of Screen (Ft)	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5	4246.5		
PCE Conc. (ug/L)		7			37			31					12	8	1.4	2.3	2.1	14	13	27	23	21	29

Well Installed
3/22/2010

MW-103

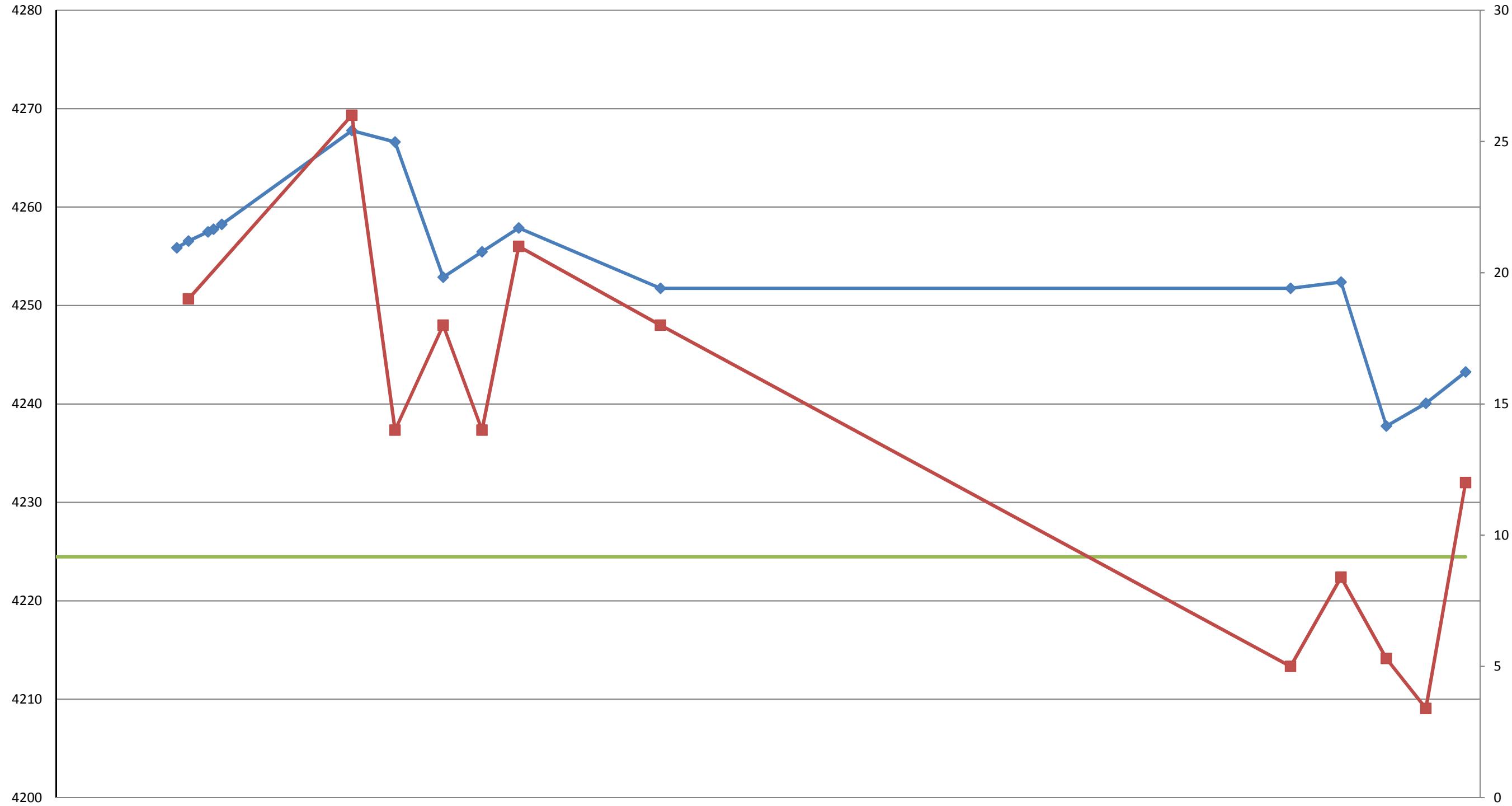


NM - Not measured due to access issues

NS - Not sampled

Well Installed
12/6/2010

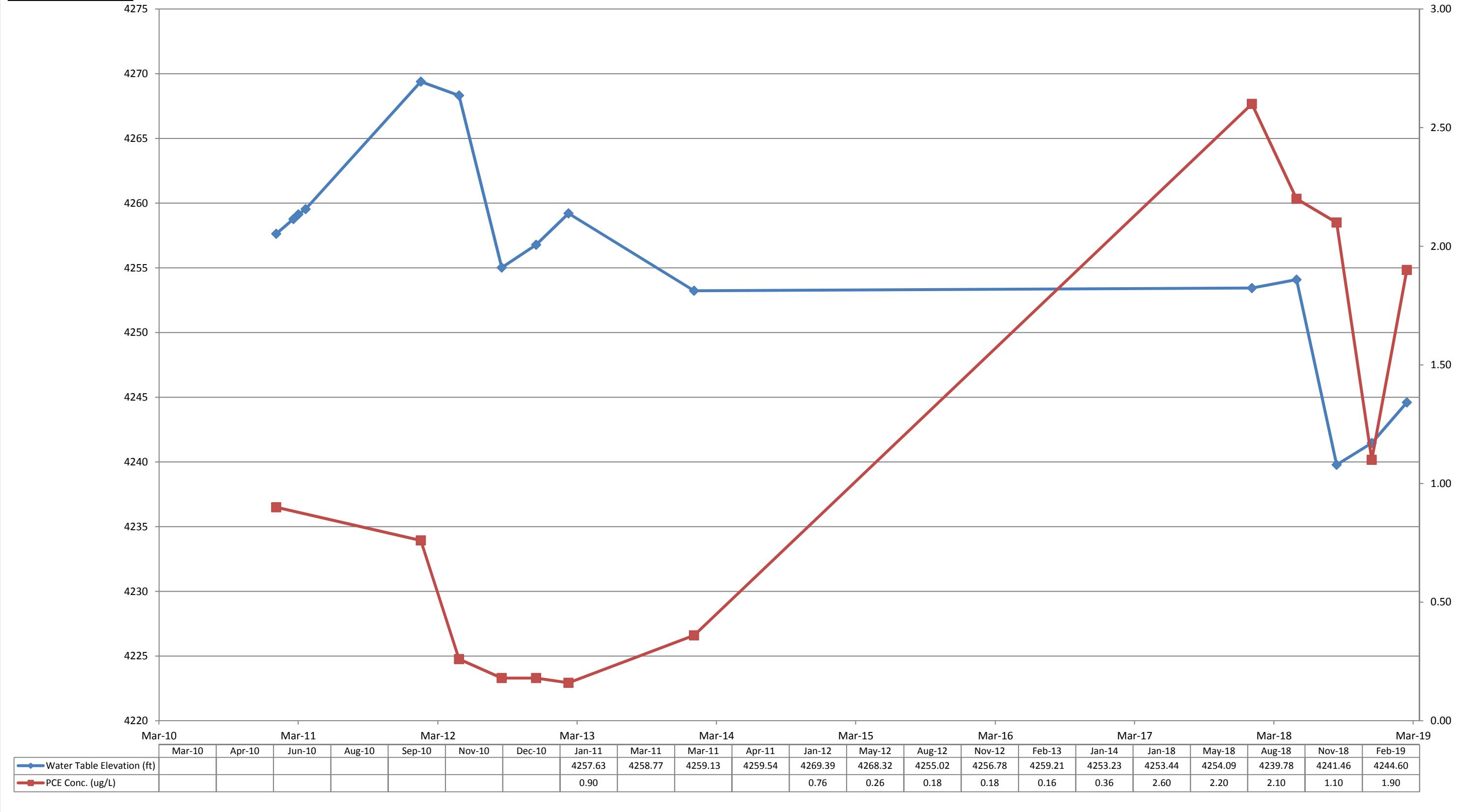
MW-104



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19	
Water Table Elevation (ft)							4255.86	4256.55	4257.47	4257.75	4258.24	4267.77	4266.62	4252.88	4255.45	4257.87	4251.74	4251.75	4252.39	4237.75	4240.07	4243.25
Top of Screen (Ft)	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	4224.5	
PCE Conc. (ug/L)								19.00				26.00	14.00	18.00	14.00	21.00	18.00	5.00	8.40	5.30	3.40	12.00

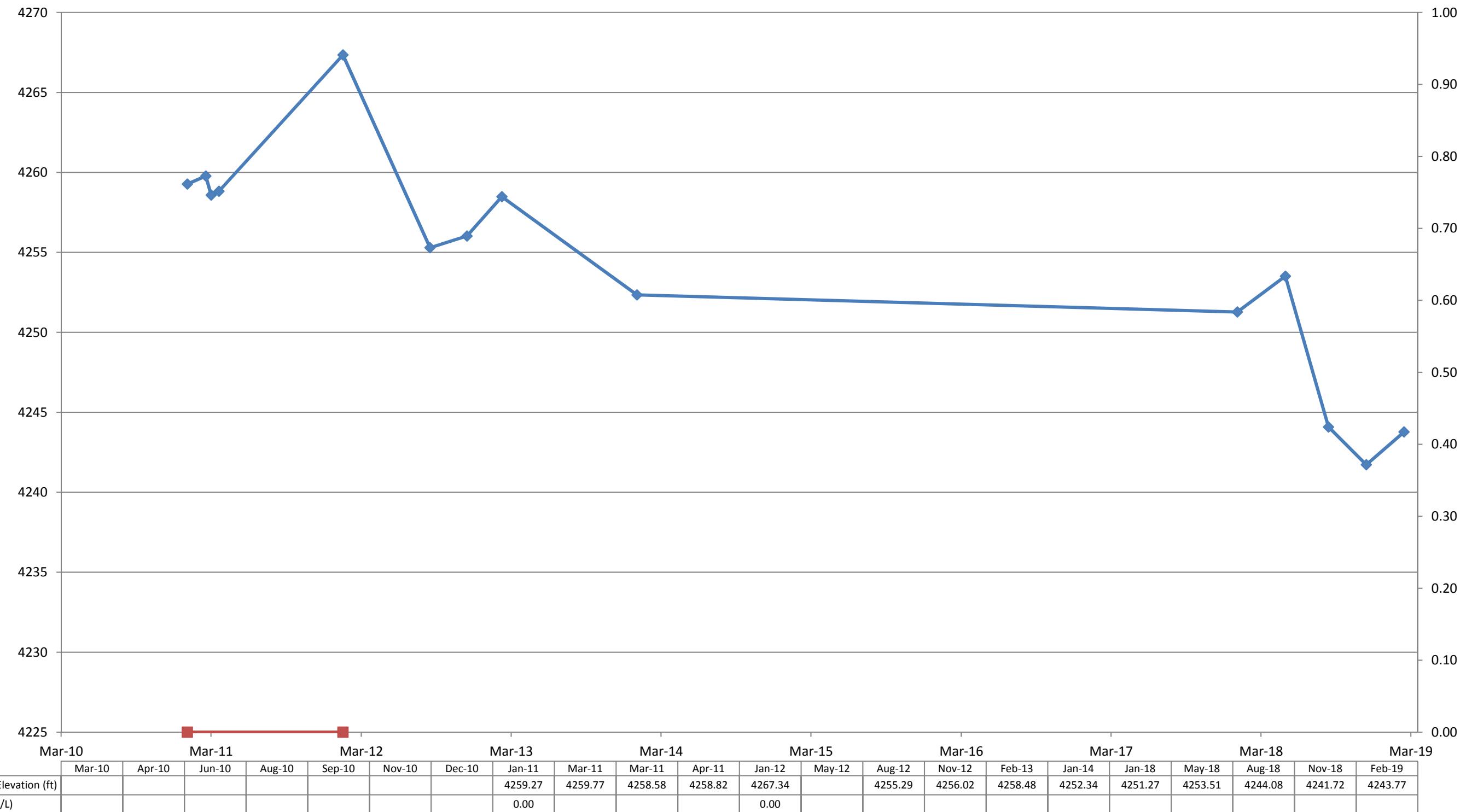
Well Installed
12/2/2010

MW-105



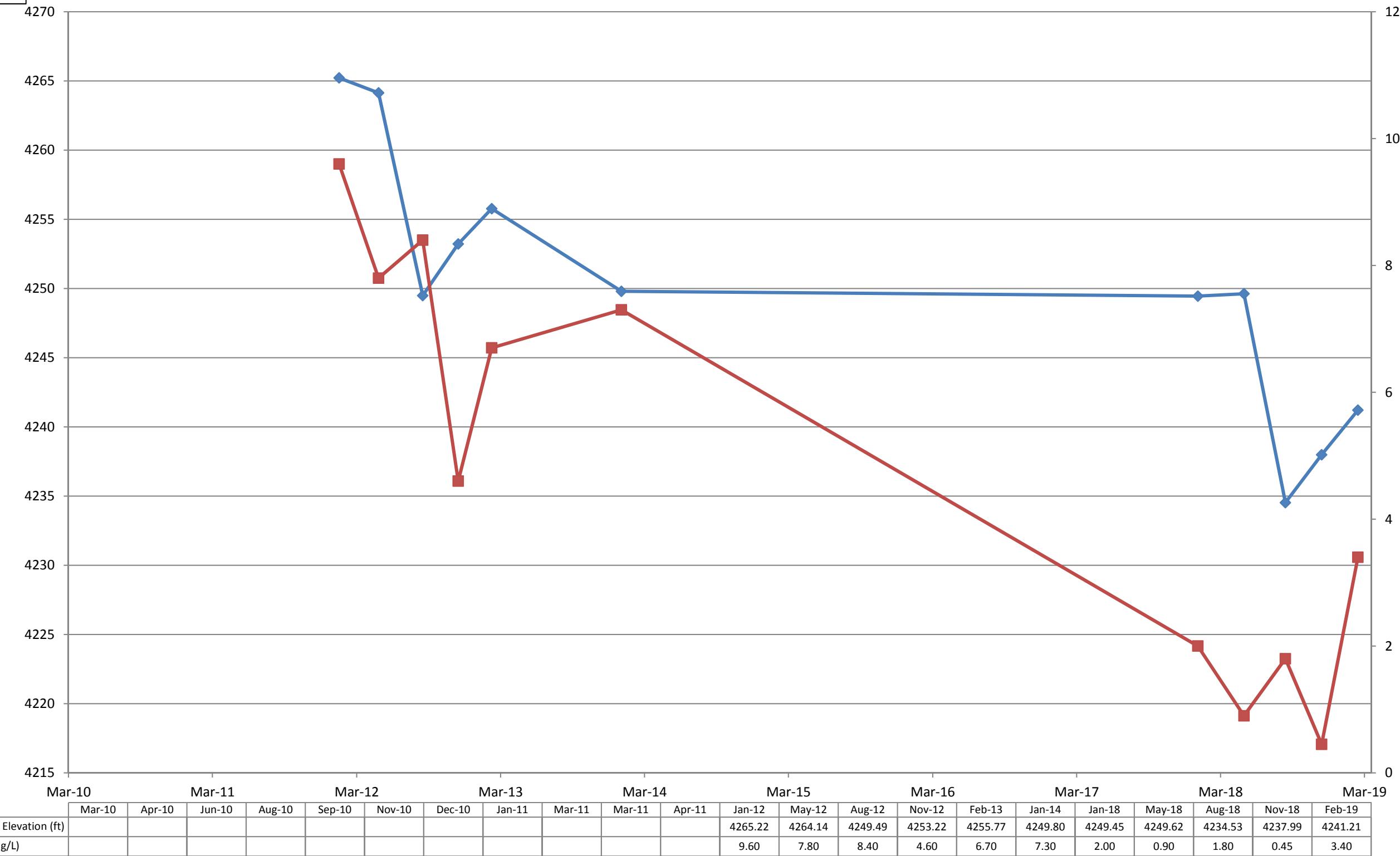
Well Installed
1/5/2011

MW-106S



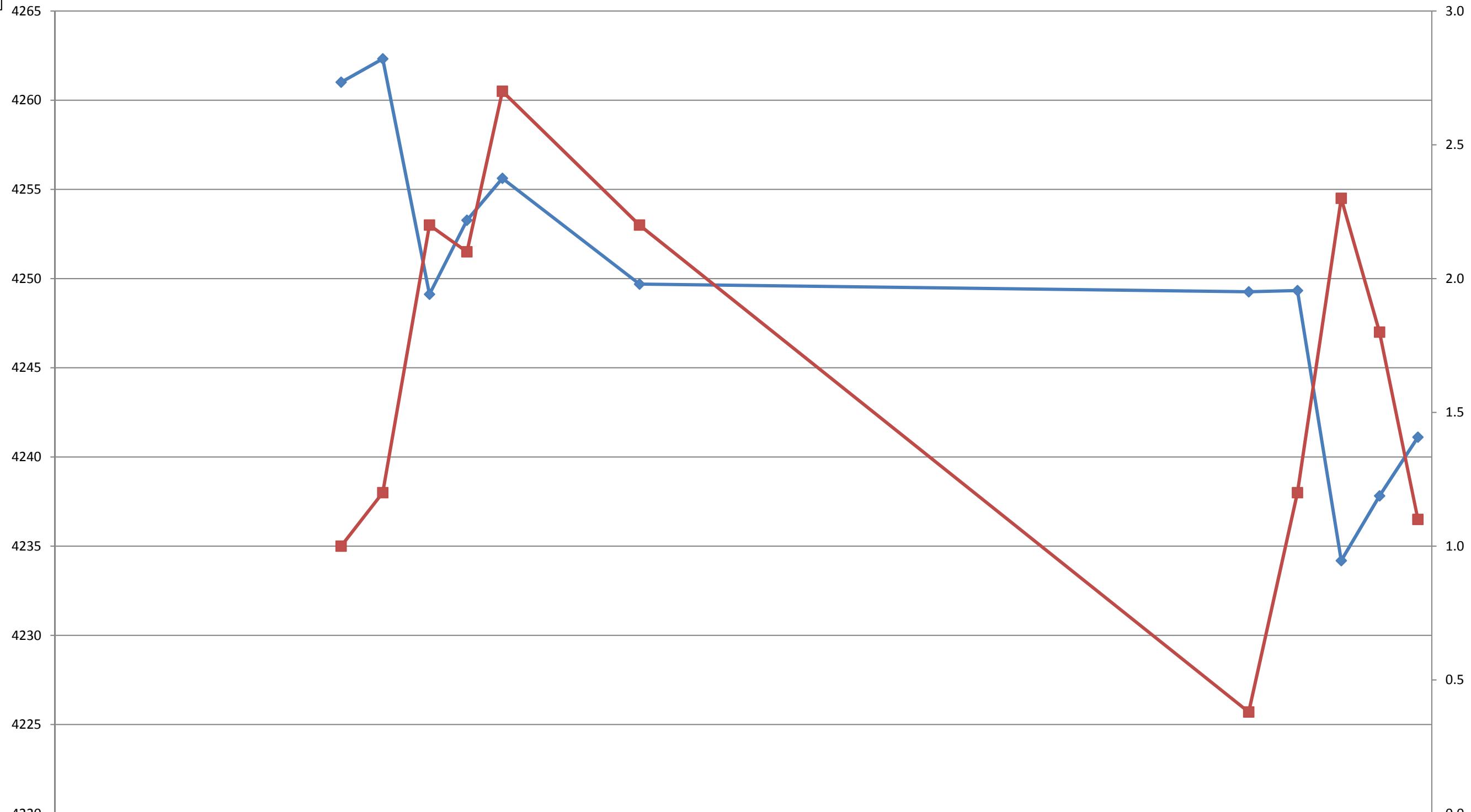
Well Installed
12/22/11

MW-106I



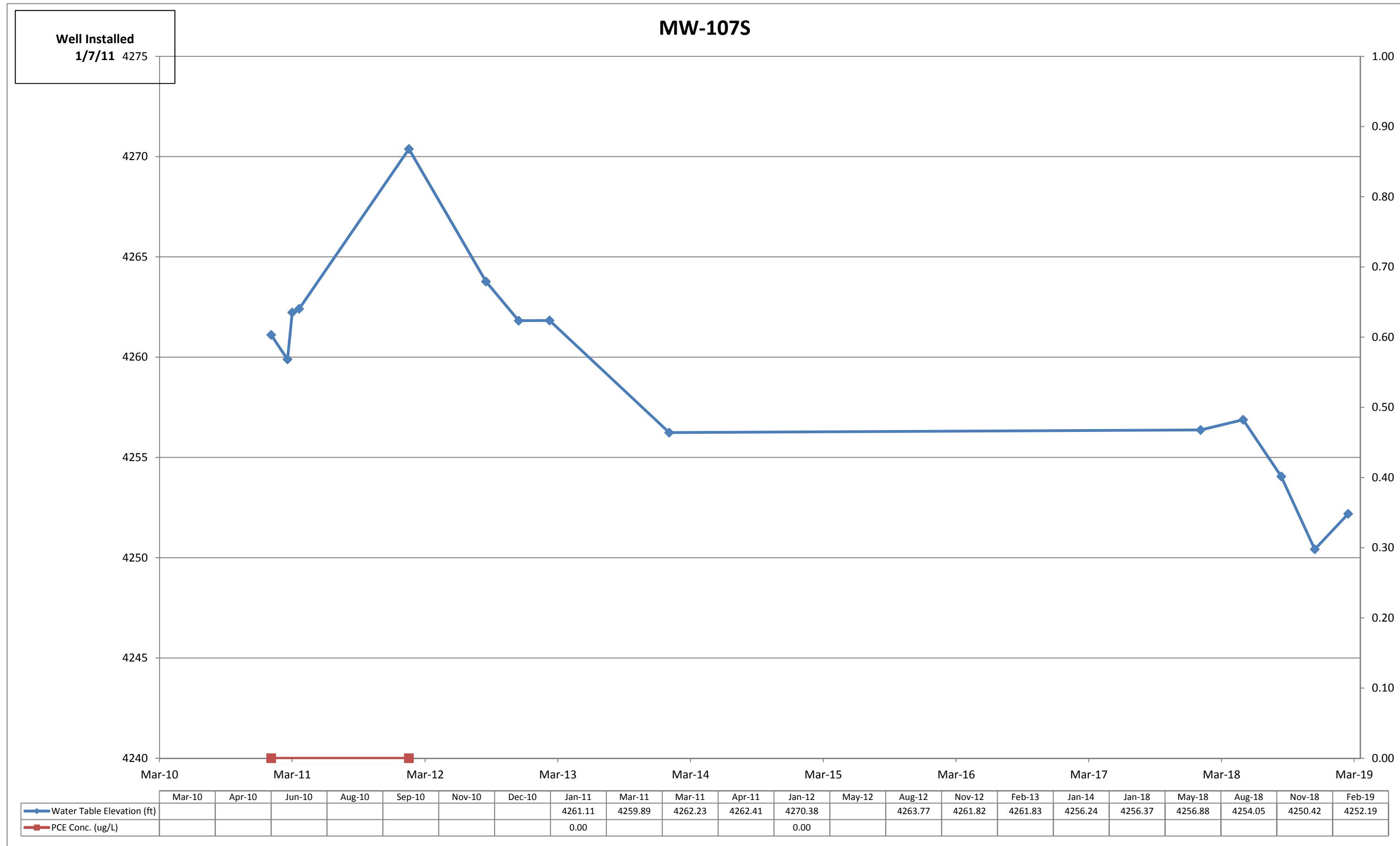
Well Installed
12/22/11

MW-106D



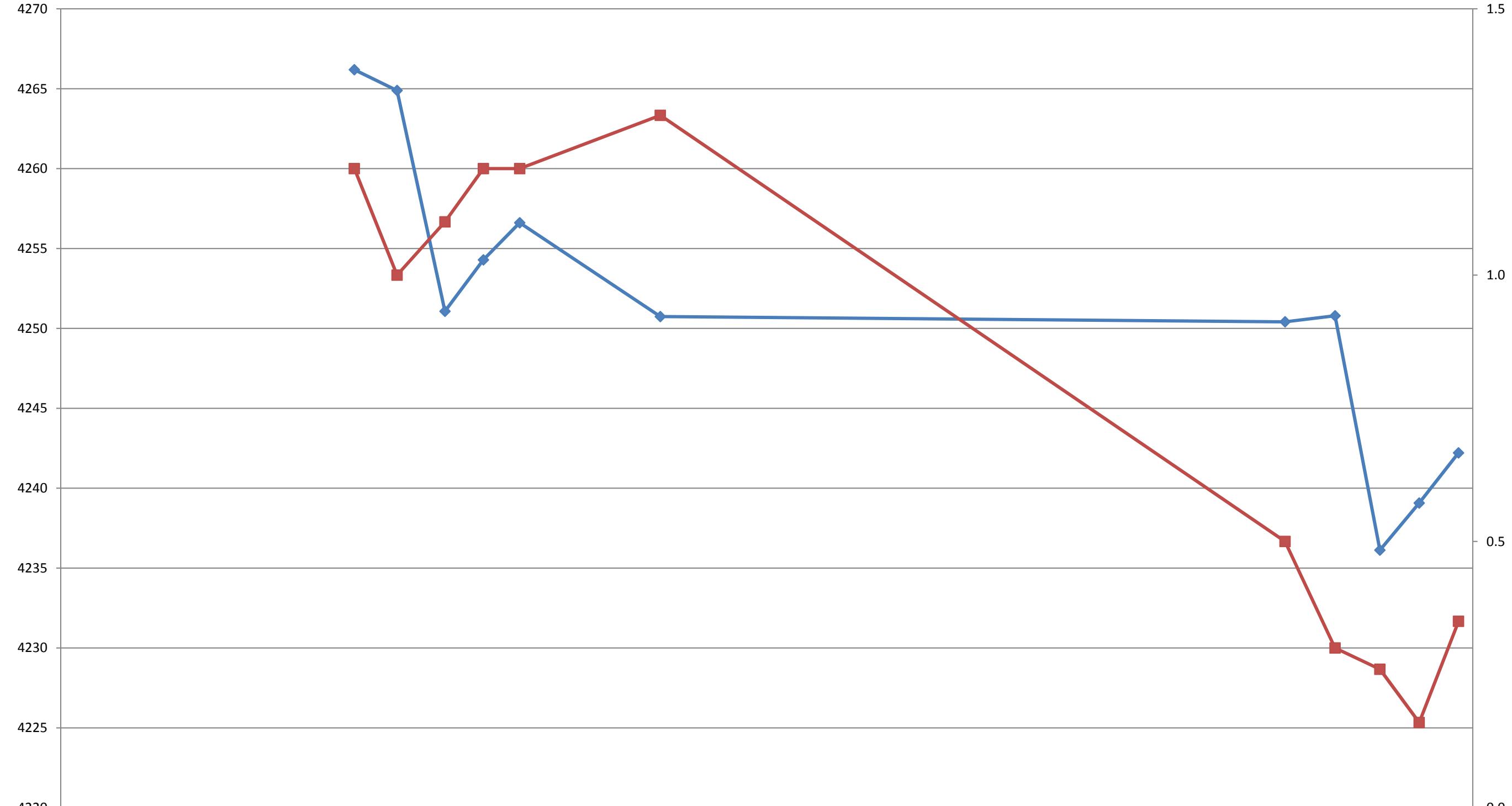
	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
Water Table Elevation (ft)											4261.01	4262.32	4249.12	4253.27	4255.62	4249.69	4249.26	4249.33	4234.19	4237.82	4241.11
PCE Conc. (ug/L)											1.00	1.20	2.20	2.10	2.70	2.20	0.38	1.20	2.30	1.80	1.10

MW-107S



Well Installed
12/9/2011

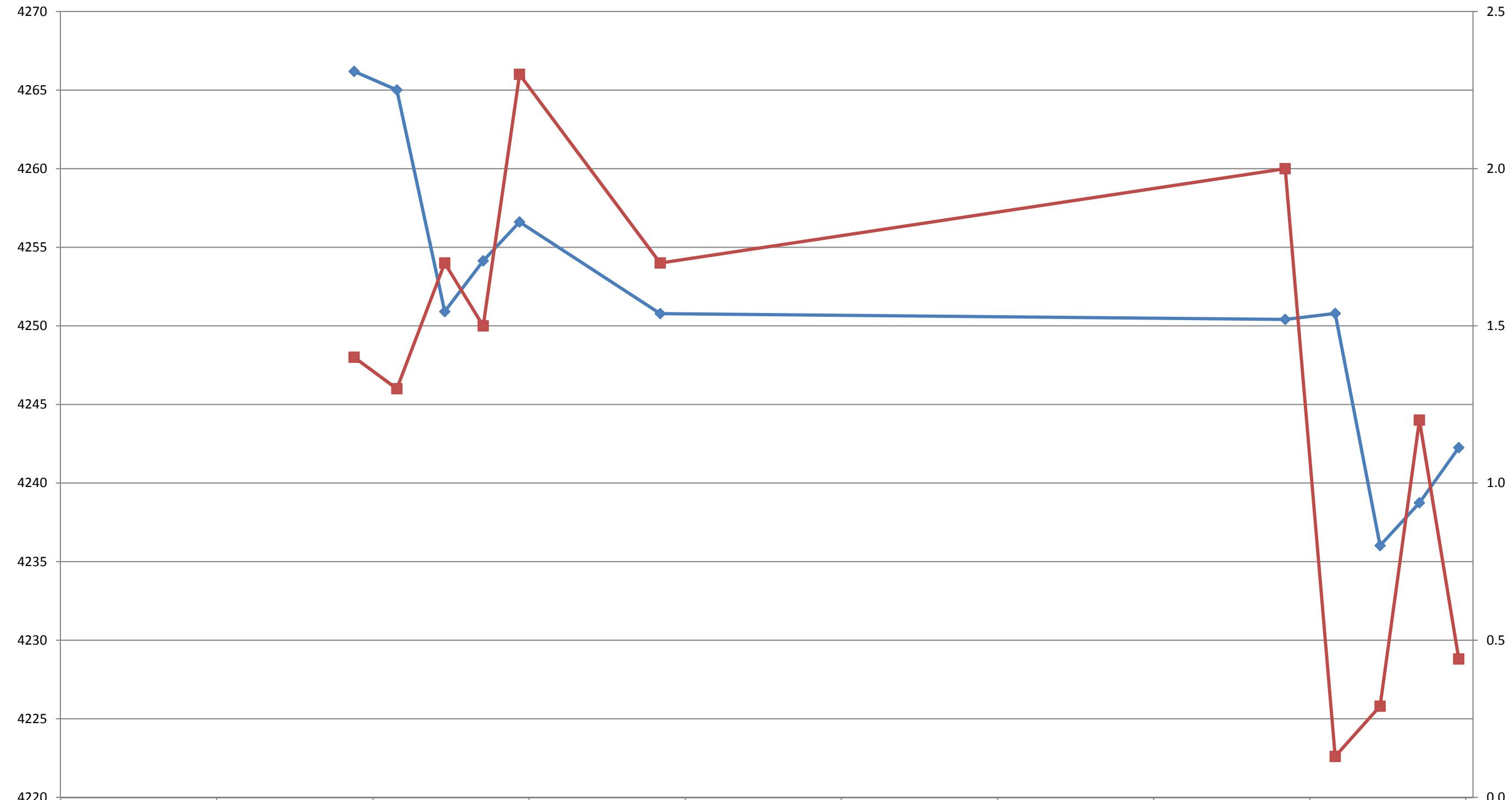
MW-107I



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
Water Table Elevation (ft)											4266.19	4264.89	4251.07	4254.29	4256.61	4250.74	4250.41	4250.79	4236.12	4239.07	4242.21
PCE Conc. (ug/L)											1.20	1.00	1.10	1.20	1.20	1.30	0.50	0.30	0.26	0.16	0.35

Well Installed
12/9/2011

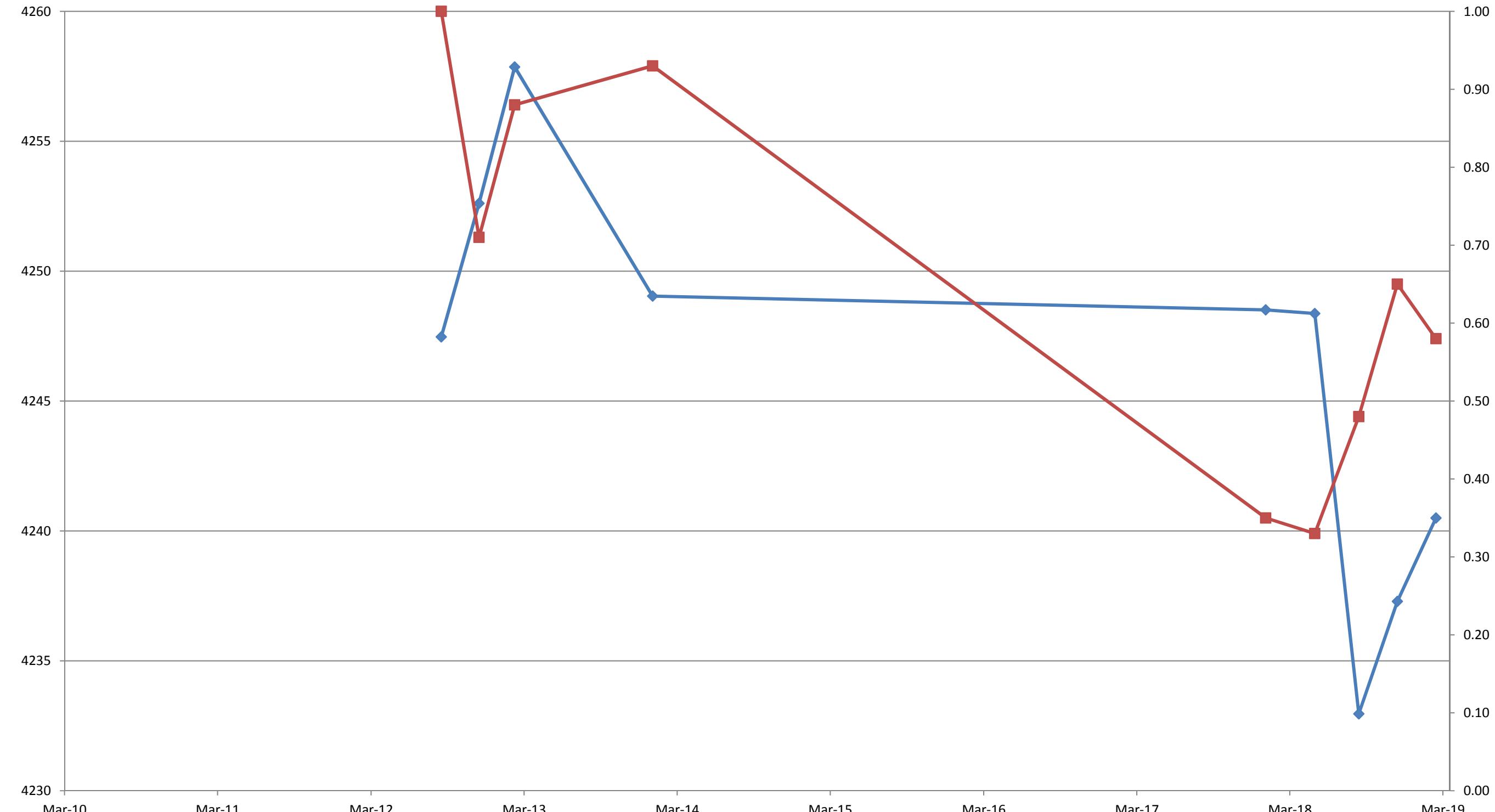
MW-107D



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
Water Table Elevation (ft)											4266.19	4265.01	4250.91	4254.14	4256.61	4250.78	4250.41	4250.79	4236.02	4238.74	4242.25
PCE Conc. (ug/L)											1.40	1.30	1.70	1.50	2.30	1.70	2.00	0.13	0.29	1.20	0.44

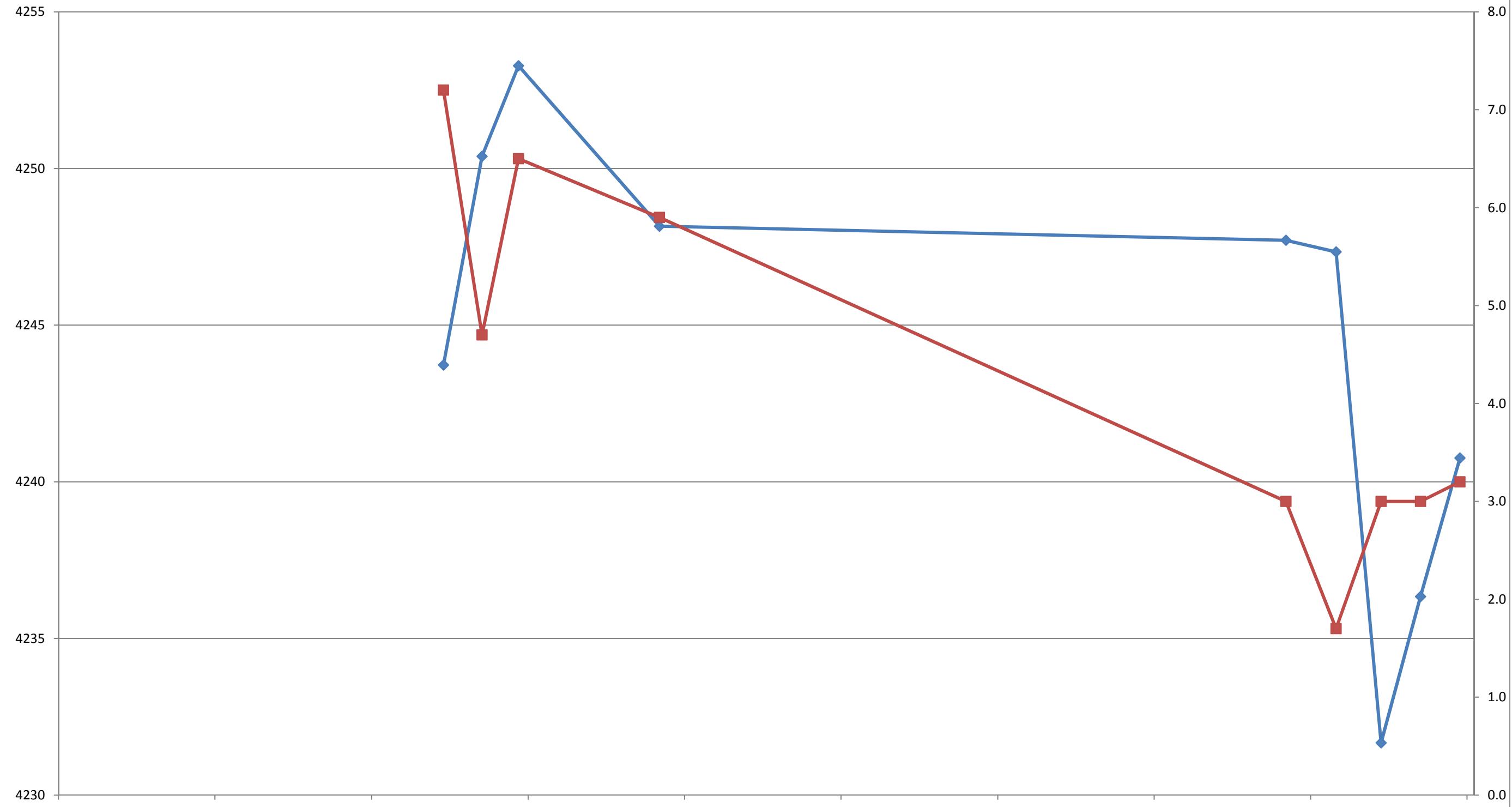
**Well Installed
7/31/2012**

MW-108



Well Installed
7/31/2012

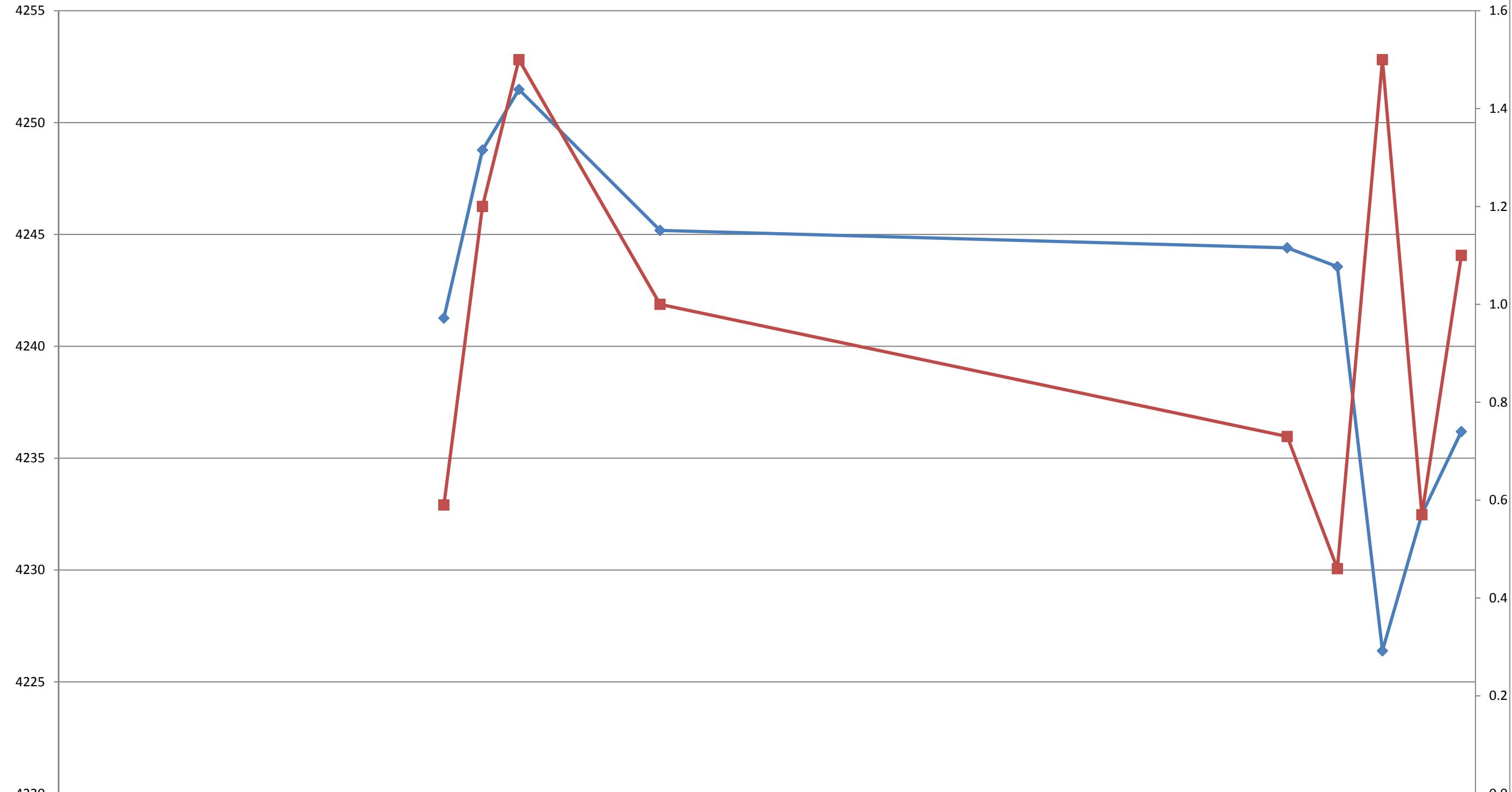
MW-108D



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
Water Table Elevation (ft)													4243.73	4250.39	4253.28	4248.16	4247.71	4247.34	4231.67	4236.34	4240.76
PCE Conc. (ug/L)													7.20	4.70	6.50	5.90	3.00	1.70	3.00	3.00	3.20

Well Installed
8/9/2012

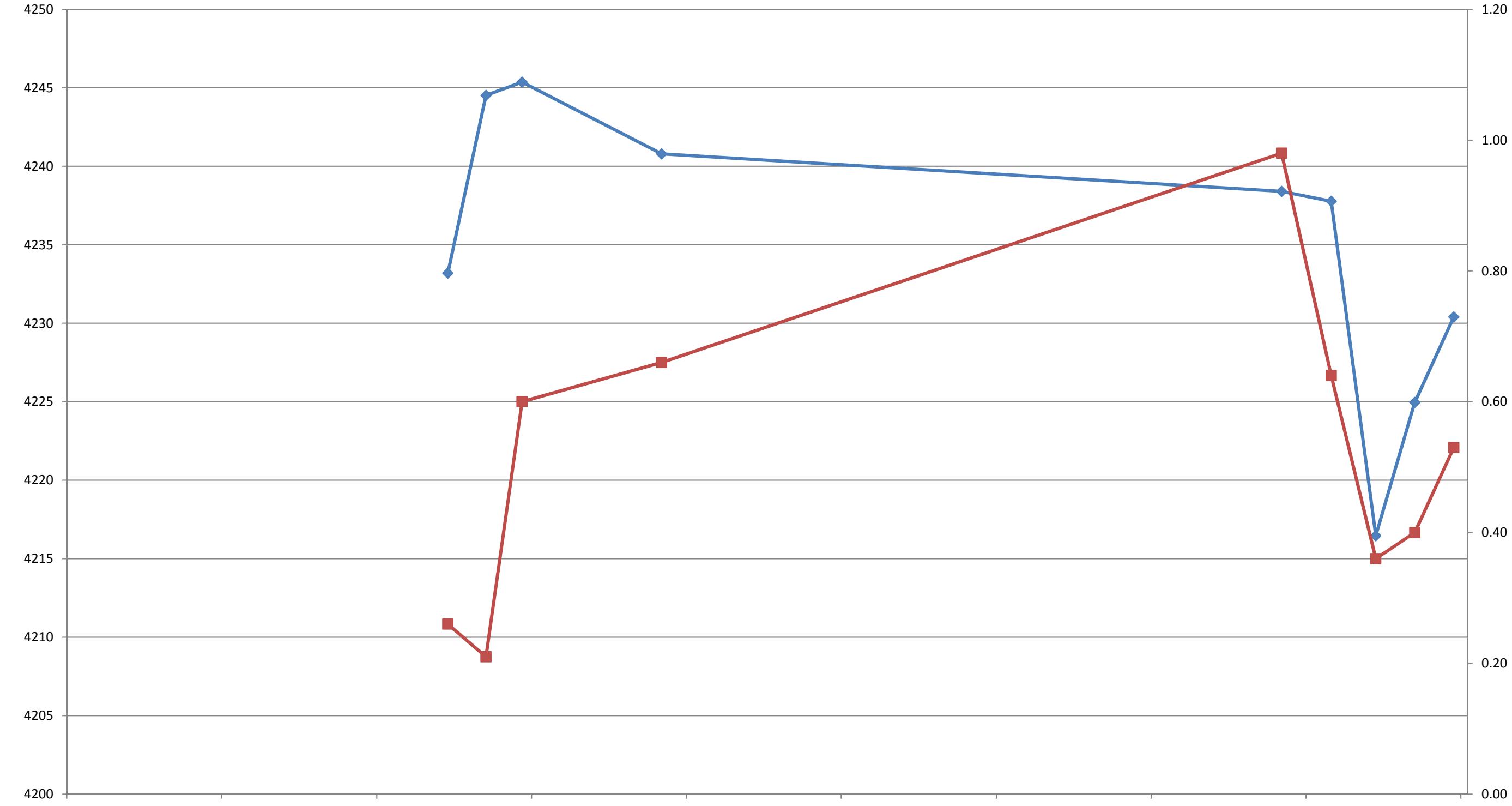
MW-109I



	Mar-10	Apr-10	Jun-10	Aug-10	Sep-10	Nov-10	Dec-10	Jan-11	Mar-11	Apr-11	Jan-12	May-12	Aug-12	Nov-12	Feb-13	Jan-14	Jan-18	May-18	Aug-18	Nov-18	Feb-19
Water Table Elevation (ft)													4241.26	4248.77	4251.48	4245.18	4244.40	4243.56	4226.39	4232.49	4236.19
PCE Conc. (ug/L)													0.59	1.20	1.50	1.00	0.73	0.46	1.50	0.57	1.10

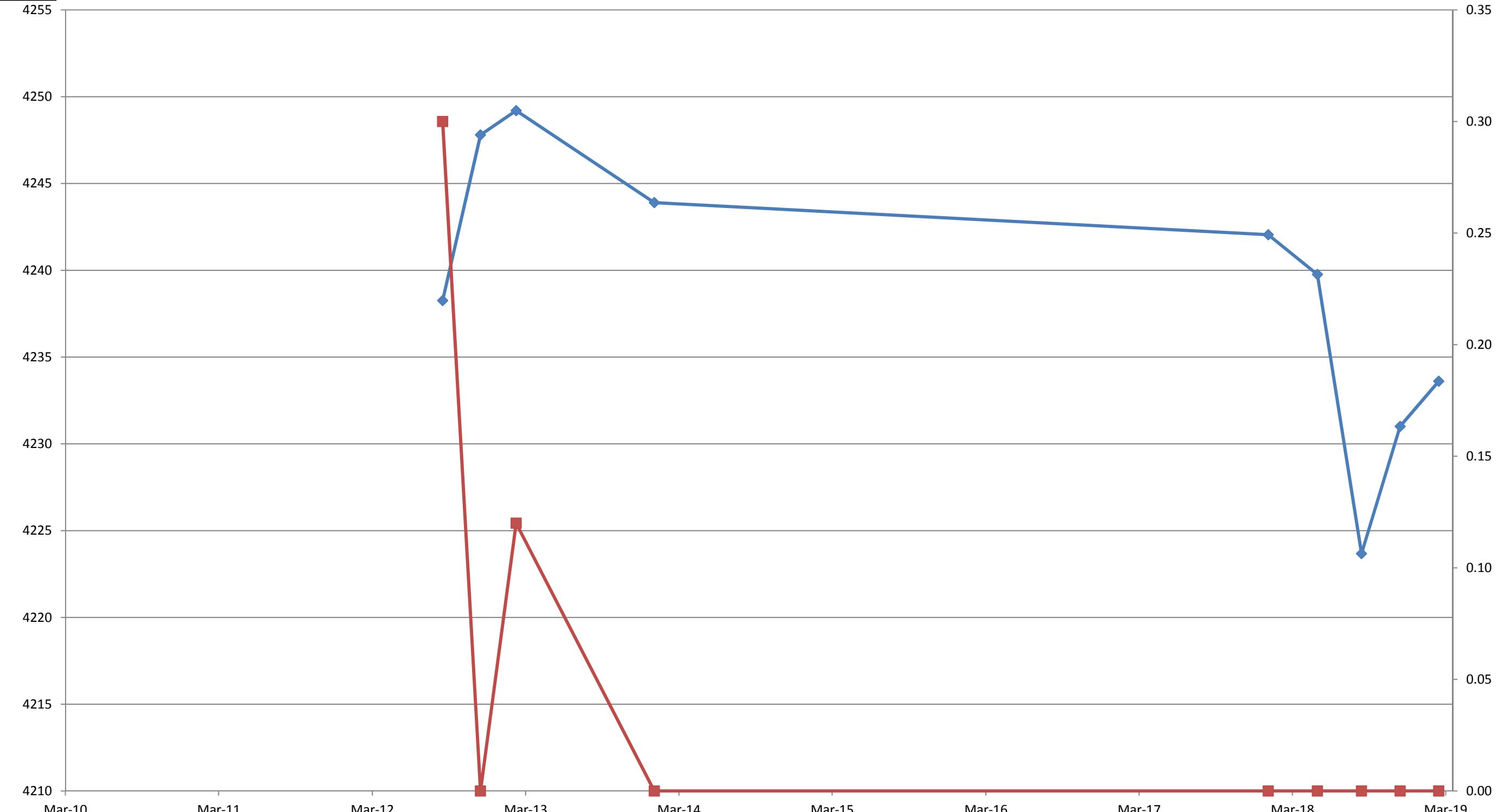
Well Installed
8/9/2012

MW-109D



Well Installed
7/25/2012

MW-110I



Well Installed
7/25/2012

MW-110D

